S Society for
E East
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A Archaeology
5 5th World Conference

FINAL PROGRAM

Fukuoka, Japan
6th - 10th June 2012

Society for East Asian Archaeology
5th World Conference

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Society for East Asian Archaeology 5th World Conference
Local Organizing Committee

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(http://www.welcome-fukuoka.or.jp/english/)

Contents

Welcome and Information

Welcome to SEAA5!

The local organizing committee of *the 5th World Conference of the Society for East Asian Archaeology* are honored and excited to have the participation of more than 190 colleagues from over 15 countries in this meeting held in Fukuoka, the city which has been one of the great hubs of the movement of peoples, knowledge and great ideas since as far back as the Yayoi period or more.

In order to make your conferencing as enjoyable, productive, and problem-free as possible, we itemize below the important pieces of information. Please study them, and in case any problem you cannot solve on spot, do not hesitate to contact me, Koji Mizoguchi, your Academic Secretary, basically stationed in the 'Situation Room' (see below for the location) via conference stuff or by coming to me in person.

We wish you a wonderful and memorable time in Fukuoka!

A. Logistical Information

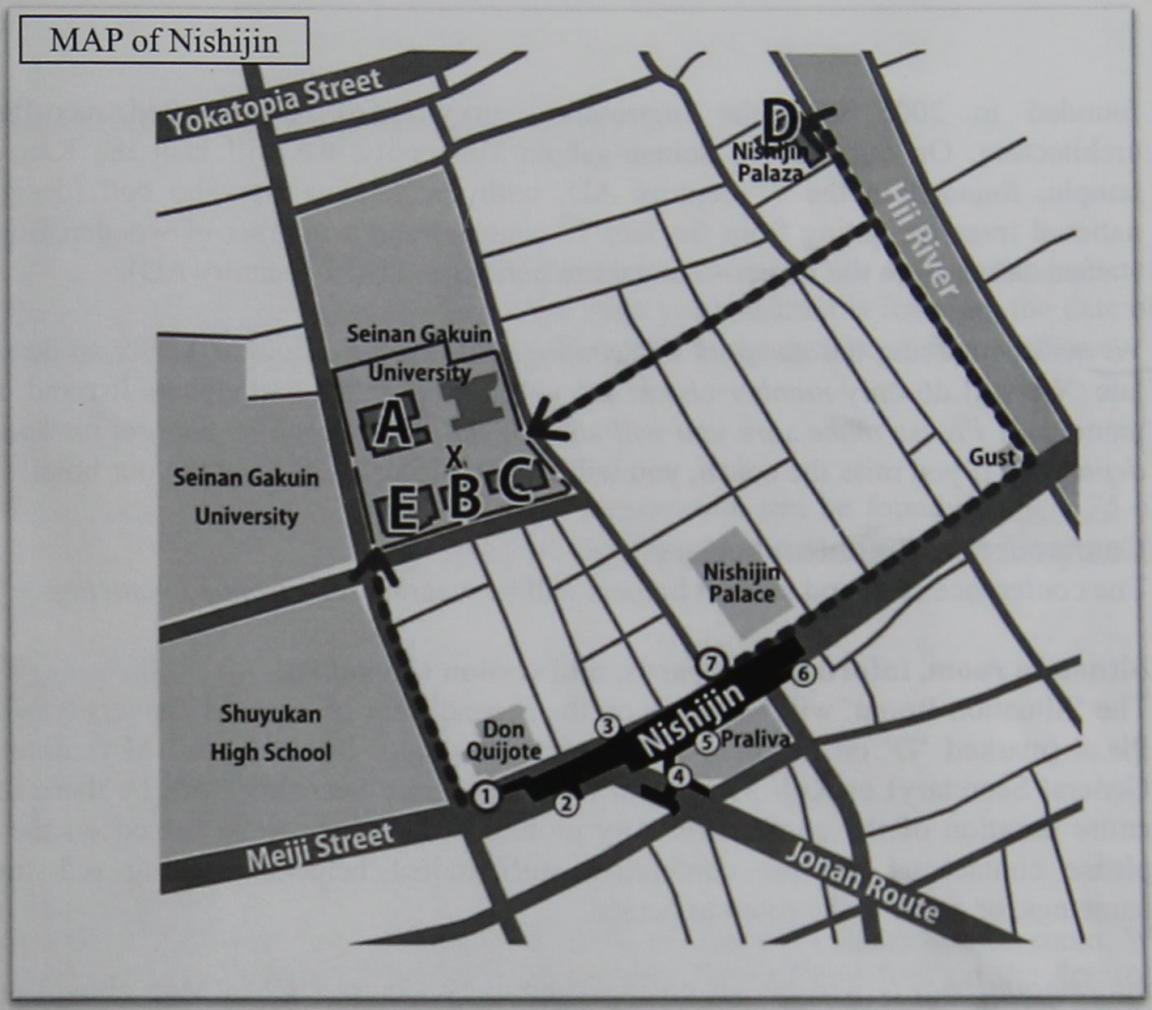
Session Venues (see Map on the opposite page) and Registration Desks
There are **four session venues**, three of which are in *Seinan-gakuin University East Campus*:

Graduate School (marked 'A' on the map on the opposite page);
Museum (B);
Community Centre (C);

and

Kyushu University Nishijin Plaza (D). **Registration desk** will be set up in Kyushu University Nishijin Plaza, where **Opening Ceremony**, **Opening Symposium** and **Welcome Reception** will also take place from *13:00 onward*, on Wednesday 6 June.

The best way to come to the venues, if you come from the *Fukuoka Airport* 福岡空港 or the *Tenjin* 天神 area, the city centre of Fukuoka, is to take subway bound for *Meinohama* 姪浜, *Maebaru* 前原 or *Nishikaratsu* 西唐津, and get off at *Nishijin* 西新. It will take 19 minutes from the Airport, and 7 minutes from Tenjin, to the Nishijin station. When you come out of the station (Exits Nos. 1 and 7), look around: you will see mountains beyond the condominiums and office buildings, and you will see the open sky to the opposite direction. *The latter is to the North.* You walk to the North and you will reach the Seinan-gakuin University Campus. The most obvious route, if you come out of Exit No. 1 (see Map), is indicated by the red arrow. Basically follow studenty people walking to Exit No. 1; they are mostly Seinan-gakuin U. students, and will take you to the main gate of the East Campus! If you come out of Exist No. 7 (see Map), and walk to the East, you will reach a river (Hi'i river). Turn left (to the North) at the bridge (there is a restaurant called 'Gust'ガスト at the corner) and walk on with the river on your right. Kyushu University Nishijin Plaza (marked 'D' in the map) is on



your left. The route, again, is indicated by the red arrow. The campus and the plaza are less than 10 minutes walk away from one another (see map).

The main gates into Seinan-gakuin University East campus and all four venues will be clearly signposted, and on 6 and 7 June there will be student helpers along the routes to direct you to the registration and the venues.

Registration and Nametag

Registration desk will be situated in the *Entrance Hall* of Kyushu University Nishijin Plaza (D). You will receive a conference bag, abstract book, booklets for local information, and, very importantly, a nametag. PLEASE DO NOT LOSE IT, and please wear it at all times during the conference. It will let you in the sessions, lunch buffet, welcome reception, conference party, **excursion to Kyushu National Museum on Friday 8 June**, and farewell party. Without it you may be denied of those entries.

Lunch Buffet venue is *Seinan-gakuin University Cross Plaza,* marked 'E' on the map. Please go to the *second floor Banquet Room*, where you will be served lunch buffet.

Conference Party and **Farewell Party** will take place in the same venue, the Banquet Room, on the second floor of the Cross Plaza (E).

Conference Excursion to the Kyushu National Museum

On Friday, 8 June, we will make an afternoon visit to the *Kyushu National Museum*,

founded in 2005 with the impressive curvy-roofed, glass-walled, eco-friendly architecture. On our way to Seinan-gakuin University, we will visit the Kanzeon-ji temple, founded in the 7th century AD, with the famous Bon-sho bell (designated national treasure, dating from the late 7th century) and a number of wooden Buddhist statues dating from the Heian ~ Kamakura period (c. 11~13th century AD).

We will be leaving the *car park in Seinan-gakuin East Campus* at 13:30, so do not be late. We will do only *number check*: we will *not* make the participants list and do the name-call! *Please make sure you will stick to the same coach as you get on board on departure.* If you miss the coach, you will end up hiring TAXI back to your hotel!

Conference Stuff/Student helpers
The conference stuff and student helpers will be wearing *red-strapped nametags.*

Situation room, information boards, and session timetables
The 'Situation Room' will be set up on the second floor of Kyushu University Nishijin Plaza (marked 'D' on the map in the previous page). Either Kazuo Miyamoto (The General Secretary) or Koji Mizoguchi (The Academic Secretary) will be there for the entire duration of the conference. Any problem which cannot be solved on the spot, please contact us via the conference stuff/student helpers, wearing red-strapped nametags, or come to the room in person.

Information boards will be set up in Community Centre ('C' in Map above) and in Kyushu University Nishijin Plaza (D) for schedule changes, notices from the local organizing committee, and personal messages. Please check them regularly.

You will find the *Conference Timetable* in page xii, and *Session Table* in page xiii below. You will also find *Index* (pp. 123~129) where you can check where you can find someone else's abstract, when s/he will speak, and where.

We are suffering from the acute shortage of human-power: many, many thanks in advance for being flexible and innovative in solving various problems that are likely to occur during the conference!

B. Information on Your Presentation

Timetable and Abstracts
Please check the date, time and the venue of your presentation. You can use the *Index* of this abstract book (pp. 123~129) to check the page your abstract is featured, the date of your session, and the venue of your session. Please learn the system of abbreviation.

Ambiru, Masao p.76, M9, CC

Meaning: the abstract of Masao AMBIRU's presentation can be found on *Page 76* of this abstract book, and it will take place in the *Morning* on *9 June* at the *Community Centre* venue.

Venue name abbreviations:
Graduate School: GS
Museum: M
Community Centre: CC
Nishijin Plaza: NP

Your power point
We will set up a *Windows-run Powerpoint 2007-installed PC* in each session room. We will 'not' set up a designated desk for pre-copying Power Point files on the desktop. Please copy your Power Point file on the desktop of the PC provided in the session room before the start of your session, and erase it after the end of the session. Please also make sure that your file works properly with the aforementioned version of Power Point. We apologize that the *Macintosh platform* will *not* be provided at the conference.

Time-keeping
If you are in a theme-based session with the organizer(s), your organizer(s) will do time-keeping at their own accord. Please follow their instruction.

If you are in a General Session, your chairperson, who kindly accepted our request to undertake the task, will show you *Time Keeping Cards,* telling you 5 minutes to go, 2 minutes to go, and Stop!

Follow their instruction, and please try as diligently as you can to keep the designated time; *overrunning is effectively taking away your colleagues' precious time and opportunity for receiving proper feed-backs.*

C. Conference Timetable

6 June (Wed.)
10:00 Registration begins (Kyushu University Nishijin Plaza)
12:00 Lunch (Seinan Gakuin University Cross Plaza)
13:00 Opening
13:30~17:20 Symposium
17:30 Welcome Reception (the Grand Entrance Hall, Nishijin Plaza)

7 June (Thur.)
9:00 Sessions commence (Four parallel sessions, Kyushu U. N-Plaza and Seinan U.)
12:30 Lunch (Seinan U. C-Plaza)
13:30 Afternoon sessions
17:30 Conference Party (the Banquet Hall, the Seinan-gakuin University Cross Plaza (2nd floor))

8 June (Fri.)
9:00 Sessions commence (Four parallel sessions, Kyushu U. N-Plaza and Seinan U.)
12:30 Lunch (Seinan U. C-Plaza)

Afternoon: Excursion to the Kyushu National Museum and the Kanzeon-ji Temple (free for the registered participants)

9 June (Sat.)
9:00 Sessions commence (Four parallel sessions, Kyushu U. N-Plaza and Seinan U.)
12:30 Lunch (Seinan U. C-Plaza)
13:30 Afternoon sessions

10 June (Sun.)
9:00 Sessions commence (Four parallel sessions, Kyushu U. N-Plaza and Seinan U.)
12:30 Lunch (Seinan U. C-Plaza)
13:30 ~ General Meeting

17:30 Farewell Party (the Banquet Hall, the Seinan-gakuin University Cross Plaza (2nd floor))

11-13 June (Mon.)
Post-conference tours

D. Session Table

Venues **Date**	Graduate School (GS: A on Map)	Museum (M: B)	Community Centre (CC: C)	Nishijin Plaza (NP: D)
Morning, Thursday 7 June	The Spread of Agriculture to Southern and Southwest China (pp. 6-10 in this booklet)	Seafaring and Long-distance Interactions in Ancient East Asia (pp. 10-13)	Issues in Japanese Archaeology (pp. 14-20)	China and Neighbouring Regions (pp. 20-24)
Afternoon, Thursday 7 June	Archaeologies in North-East Asia and Mongolia (pp. 25-29)	China and Neibouring Regions 2 (pp. 29-34)	Theorising the Yayoi and Kofun Periods: Recent Trends and Prospects (pp. 34-39)	Anthropological and archaeological studies on the relations between South Korea and Japan from the Early Iron Age to the Three Kingdoms of Korea (pp. 39-44)
Morning, Friday 8 June	Pottery and Neolithisation in East Asia (pp. 45-49)	Public Archaeology and Historical Reflections (pp. 49-53)	Reconsidering the Crescent-Shaped Exchange Belt – Methodological, Theoretical and Material Concerns of Long-Distance Interactions in East Asia Thirty Years after Tong Enzheng (pp. 53-58)	Human Population and Social Organization:Kinship, Stratification, and Gender (pp. 58-65)
Afternoon, Friday 8 June	Excursion to the Kyushu National Museum and the Kanzeonji temple			
Morning, Saturday 9 June	Contacts, Trades and Acculturations (pp. 66-68)	Comparative Studies of Skeuomorphs and Prestige Items in Early Metal Using Societies of Northeast Asia (pp. 68-72)	Human Subsistence'within' Nature: Emergence and Diversity of Tools in Prehistoric East Asia (pp. 72-78)	Multiple dimensions of archaeological research in Taiwan (pp. 78-82)
Afternoon, Saturday 9 June	The Chengdu Plain Archaeological Survey-Methods and Results (pp. 83-85)	Human Population and Social Organization: Technology Transfer (pp. 85-90)	Issues in Contemporary Korean Archaeology (pp. 90-98)	Interfaces of Natural Scientific Approaches and Humanistic Investigations (pp. 98-102)
Morning, Sunday 10 June	Human Population and Social Organization: Interaction (pp. 103-106)	Archaeologies of South-East Asia and Beyond (pp. 106-108)	How did People and Social Organization Change?: Some Aspects of Manufacture from the Prehistoric to the Medieval China (pp. 108-115)	East Asian Archaeological Collections in European Museums (pp. 115-120)

ABSTRACTS

Afternoon, Wednesday 6 June, 2012

Wednesday 6 June (Afternoon)
Venue: Kyushu U. Nishijin Plaza

Opening Symposium:
Advances and Challenges in Japanese Archaeology

Organizer:
SEAA5 organizing committee

Chair: Koji Mizoguchi (Graduate School of Social & Cultural Studies, Kyushu University)

Symposium Abstract
The feeling is widely shared that Japanese archaeology is at a crossroad. Globalisation and socio-economic/political/cultural transformations that it ignited are urging us to rethink fundamentally the way we do archaeology/archaeologies in contemporary world, and the sense of urgency has grown by the day since 11 March 2011.

This opening symposium aims to introduce the participants a broad picture of changes happening to the archaeological study of the archipelago and how we are coping with and building new approaches/attitudes by drawing upon them. The panels do not pretend to represent the whole, balanced picture of the archaeology of each of the periods covered, and the adoption of a period-by-period treatment is utterly artificial and pragmatic; we try to convey the 'feel' of being at a crossroad from the standpoints of our period-based specialisms.

Timetable
13:30~14:10: Hiroyuki Sato *Recent Advances of Palaeolithic Archaeology in Japan*
14:10~14:50: Kazuo Miyamoto *Review and Current Research of Jomon Archaeology: viewed from the East Asian Archeology*
14:50~15:30: Koji Mizoguchi *Yayoi Archaeologies: recent trends and prospects*
15:30~15:45 Break
15:45~16:25: Jun'ichiro Tsujita *Kofun Period studies in Japanese Archaeology: from the perspective of the ancient state formation*
16:25~17:05: Katsuyuki Okamura *After the Earthquakes: An Examination of the Implications of the Great East Japan Earthquake for Japanese Archaeological Heritage Management*
17:05~17:20 Discussion

Abstracts

Recent Advances of Paleolithic Archaeology in Japan

Hiroyuki Sato
(Graduate School of Humanities and Sociology, The University of Tokyo)

The Japanese Paleolithic Research Association (JPRA) reports lately that over 14,500 Paleolithic sites distributes throughout the Japanese archipelago, from the northern Hokkaido to the southern Islands. Although almost sites of Lower and Middle Paleolithic turned out to be fabricated by the Fukimura's Fake Scandal, a few sites are supposed to belong to Late Middle Paleolithic. In contrast, the number of sites in the Upper Paleolithic (UP, 40 – 15 ka) dramatically increases.

Lithic manufacturing technique of the UP, especially the EUP (40 – 28 ka), in the Japanese archipelago has a distinguishing feature. That is, bipartite structure of lithic assemblage composed of the newly-appeared blade technique and domestic flaking technique. The early EUP in the Japanese archipelago has some distinctive cultural features as the modern human behaviors that were not shared with neighboring Continents. Firstly, edge-ground stone axes have the oldest dates (over 30 ka) in the world. Second is the existence of circular settlements. While no remains of digging archaeological features such as pit-dwellings are there, the characteristic of circular distribution that some lithic concentrations cover 20 – 100 m across is considered to be an evidence of a settlement potentially. Edge-ground stone axes and circular settlements distribute in all Japanese archipelago without Hokkaido. Trap-pit hunting is third example. Trap-pits distribute mainly in southern coastal areas of Japanese archipelago mainly, and over 397 trap-pits have been found in about 52 sites. Especially at the EUP, trap-pits were arranged in a line which is 100 meters long nearby.

Since in the LUP (28 – 15 ka) lithic industries have different regional features, it is likely that regional societies developed. After this stage, in the beginning of Last Glacial (LG, 15 – 11 ka), the oldest potteries already emerged. Generally, Japanese archaeologists regard this stage as the start of Jomon era, because pottery cultures continued from this period through the end of Jomon to later historical period without any intermissions.

Review and Current Research of Jomon Archaeology: viewed from the East Asian Archeology

Kazuo Miyamoto
(Graduate School of Humanities, Kyushu University)

I firstly would like to make a position about Jomon period in the Archeological context of East Asia, especially in the Neolithic and Bronze Age of East Asia. The similarity and difference to other Neolithic area of East Asia from Jomon society will be clarified. Based on the research history of Jomon about chronology or typology and settlement archaeology, the particularity of Jomon research in Japan will be discussed. However

the Jomon society is believed to be egalitarian and tribe society according to archeological evidence of burial system and the extraction teeth custom, although it is said that the Jomon period was highly developed in the sedentary society. In addition, the issue of Jomon Agriculture should be discussed. Current research of plant archeology of Japan, especially silicon SEM method identified the domestication of Soy and Azuki beans after middle Jomon period. Horticulture is added to the hunting-gathering society in Jomon period. I will discuss about horticulture which include the rice cereals. At the last, the transition from foragers to farmers that is from Jomon to Yayoi period in Japan should be discussed. Fukuoka plain is one of gate ways of new culture from continental area in Japanese Archipelago in the whole history of Japan. The emergence of Yayoi culture is also originated by the interaction between Mumun people from southern Korean Peninsula and Jomon people of northern Kyushu. The process from Jomon to Yayoi period is also discussed.

Yayoi archaeologies: recent trends and prospects

Koji Mizoguchi
(Graduate School of Social and Cultural Studies, Kyushu University)

This paper comments upon some recent trends in the study of the Yayoi period that are not only changing the image of the period but also demanding the alteration of the way we investigate, explain and understand the period itself, and argue about their implications for future research.

The debate ignited by the AMS dating program conducted by the National Museum of Japanese History has led to renewed interests in the determination of the absolute dates of the important epochs and turning points in the period, and stimulated novel investigations into the correlation between climatic and socio-cultural/economic/political changes during the period. The proposal of new models on the structure and transformation of the mortuary practice and settlement organization of the period, informed by social anthropology and osteo-archaeology, is challenging the established model of the development of social complexity and hierarchy. Innovative approaches to the pictorial representations on material items of the period has given us some novel insights into the mental landscape of the people and their relations to their social backgrounds.

By drawing upon those trends, the paper proposes a new model for understanding the nature of Yayoi social formation and suggests some new strands of investigation.

Kofun Period studies in Japanese Archaeology: from the perspective of the ancient state formation

Jun'ichiro Tsujita
(Graduate School of Humanities, Kyushu University)

In Japanese Archaeology, Kofun Period studies are important to consider the formation

process of the Ancient State in Japanese archipelago. In this period, the social complexity of the archipelago increased through the development of paddy rice agriculture, the production and distribution of the bronze and iron artifacts and the incorporation into the international order of the East Asia. During the latest 2nd century to the Early 3rd century, the wide social network like the chiefdom confederacy, which are signified by the keyhole-shaped tumuli, emerged from southern Tohoku region to southern Kyushu. Recent archaeological studies discuss about this process during the 3rd through the 7th centuries from the viewpoint of the state formation. In this presentation, the author will outline the archaeology of the Kofun Period and show the issues of the each period from the perspective of the ancient state formation of the East Asia.

After the Earthquakes: An Examination of the Implications of the Great East Japan Earthquake for Japanese Archaeological Heritage Management

Katsuyuki Okamura
(Osaka City Cultural Properties Association)

Morning, Thursday 7 June, 2012

Thursday, 7 June (Morning)
Venue: Graduate School

Title of Session:
The Spread of Agriculture to Southern and Southwest China

Organizer:
Jade d'Alpoim Guedes (Harvard University)

Session Abstract
To date, relatively little is known about the spread of agriculture to Southern and Southwest China. Encompassing the provinces of Guangdong, Guangxi, Sichuan, Yunnan and Guizhou, this region is situated at the junction of different ecological zones: the Tibetan high plateau, the southern foothills of the Himalayas and low lying temperate and subtropical plains. How and when agriculture spread into this region is important for understanding how agricultural technology, languages and population spread into Southeast Asia and Taiwan. Data from archaeobotanical investigations and zooarchaeology will be presented. This symposium will also highlight the great diversity of ecological habitats and adaptive strategies employed by the wide range of cultural groups who inhabited the region.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Jade d'Alpoim Guedes: Rice, millets, social complexity and the spread of agriculture to the Chengdu Plain
9:30~9:50: Hiroo Nasu: Development of rice and foxtail millet agriculture in the middle of Yangze River region: reconstructed from archaeobotanical weed assemblages from Chengtoushan, Hunan, China
9:50~10:10: Jin Hetian: Early agriculture in Yunnan province: Evidence from the site of Haimenkou
10:10~10:30: Richard Meadow T.B.E.
10:30~10:45 Tea & Coffee
10:45~11:05: Zhao Zhijun: The characteristics of early agriculture in the Sichuan Basin and its origin: results of the archaeobotanical analysis carried out at the site of Yingpanshan
11:05~11:25: Chen Tao: Phytolith Analysis from the Archaeological Site of Baodun
11:25~11:45: Loukas Barton: Harlan's mosaic and the scale of agricultural evolution in east Asia
11:45~12:05: Xue Yining A Preliminary Analysis on the Utilization of Botanical Resources at the Site of Haimenkou (ca.1600-400 BC), Jianchuan County, Yunnan

Province, PRC

12:05~12:25: Alison Weisskopf: Evolving rice cultivation systems, early results from the Lower Yangtze

Abstracts

Development of rice and foxtail millet agriculture in the middle of Yangze River region: reconstructed from archaeobotanical weed assemblages from Chengtoushan, Hunan, China

Nasu Hiroo
(The Graduate University for Advanced Studies (Sokendai))

Archaeobotanical weed assemblages from Chengtoushan, Hunan, China provides how rice and millet agriculture developed together in the middle of Yangtze River region with relation to the land-use and environmental change. Millets were domesticated in the Yellow River region around 7000 BC and then millet cultivation spread to the Yangtze River region around 4000 BC. Chengtoushan is an earliest site where both rice and foxtail millet were started to cultivate in the Yangtze River region. Archaeobotanical analysis, especially in weed assemblages, of moat sediments from the Chengtoushan provides evidence of the land-use change for rice and foxtail millet cultivation around the site. Increasing upland field and ruderal weeds over time suggests that dryland farming expanded on the site and foxtail millet was cultivated in that area. Paddy field and wetland weeds decreased through time, however, the proportion of rice findings is constantly high. This result indicates rice was probably cultivated on the alluvial plain surrounding the site. The geographical location of Chengtoushan, which is located on the boundary between the loess terrace and the alluvial plain, allowed the establishment of both rice and foxtail millet cultivation. These differences of land-use for rice and foxtail millet cultivation were possibly caused by increasing population and/or a buffer against natural disasters as like flooding. Gathering wild nuts and fruits is still important in Chengtoushan, although cultivation of rice and millet had already started. Such multiple food procurement strategies provide sustainable food supply for the people in this area.

Study of charred plant remains from Haimenkou site, Yunnan Province, China

Jin Hetian
(Peking University)

Systematic archaeobotany flotation and study were carried out in Haimenkou site, Yunnan Province, Southwest China. Charred plant remains were recovered, including rice, foxtail millet, broomcorn millet, wheat, barley, soy bean, buckwheat and other

wild weeds. Most of crops, except rice, had never been found in Yunnan Province.

A series of direct AMS 14C dates were carried out. They showed the sediment of Haimenkou site had lasted for more than a thousand years.

Charred plant remains in this site could be generally divided into two phases.

The first phase lasted from 1750BC to 1050BC. Rice, foxtail millet and wheat were dominant crops in this phase. Rice and foxtail millet were planted by local people from the beginning of this phase. They were the most important crops at first. Wheat appeared in the site at around 1600BC. As soon as it was planted, it began to more and more. And at the end of this phase, wheat became the most numerous crops. The rice, foxtail millet and wheat in the site are so far the earliest crops in Yunnan Province.

The second phase began at 800BC. It lasted at least for 300—400 years. Wheat played the important role in this phase. The quantity of wheat was significantly more than the other crops. And other crops remains greatly declined.

Furthermore, analysis of weeds and spikelet bases showed the difference in crop processing between two phases.

Phytolith analysis from the archaeological site of Baodun, Chengdu, Sichuan, China

Chen Tao
(Department of Scientific History and Archaeometry, Graduate School of Chinese Academy of Sciences)

Chengdu Plain is generally considered to the center of civilization in the upper Yangtze in China. Prehistoric agricultural strategies in this region have been discussed for a long time. However, the previous research relied primarily on indirect evidence (such as ancient literature, unearthed production implement and culture diffusion), while the evidence of plant material itself is lacking. It is only recently that floatation methods have been implemented in excavations in the Chengdu region, which significantly enrich our knowledge about the ancient uses of plants and agricultural strategies on the Chengdu Plain. However, the macroscopic plant remains retrieved from archaeological sites were deposited through accidental charring, which often leads to fragmentary reconstruction. Here, we conducted phytolith analysis on Baodun site of the Chengdu Plain in order to obtain further archaeobotanical knowledge to interpret the agricultural economy in a crucial transition period leading towards the complex society. Our analysis results showed that all the samples belonging to the Baodun culture (2500-1700 BC) contained more rice than millet phytoliths. This phenomenon indicates that the prehistoric agricultural economy of Baodun site was mainly based on rice cultivation and supplemented by millet. In addition, result of a statistical study of phytolith suggests that the climate during the Baodun culture was humid and warm and very suitable for the development of rice agriculture.

A Preliminary Analysis on the Utilization of Botanical Resources at the Site of Haimenkou (ca.1600-400 BC), Jianchuan County, Yunnan Province, PRC

Yining Xue
(Department of Archaeology, Boston University)

The site of Haimenkou is one of the earliest and the most important Bronze Age sites in Yunnan Province, PRC. The systematic flotation undertaken during the third excavation in 2008 yielded a broad spectrum of plant macro-remains dating from ca.1600 to 400 BC. It offered a good opportunity for studying the diachronic changes in subsistence and vegetation at this site.

During the first phase of occupation at the Haimenkou site (ca. 1600 to 1100 BC), rice (*Oryza sativa*), foxtail millet (*Seteria italica*), bread wheat (*Triticum aestivum*) and chenopod (*Chenopodium sp.*) dominated the crop assemblage. The earliest evidence for wheat cultivation appeared between ca.1400 to 1200 BC, while the agriculture of rice and millet had already developed by ca.1600-1400 BC. The second phase of occupation at this site started around 800 BC. The crop assemblage shifted dramatically during this phase. Wheat became the principal crop and chenopod suddenly ceased to exist. The proportion of rice and millet also declined. The leap of wheat agriculture at Haimenkou site during this period might have been influenced by the migration of people from North China to this region.

This research is important for filling the gap in archaeobotanic studies in Yunnan Province. Previous research in this region largely focused on rice cultivation and little attention had been paid to other plants. The findings of *Panicum miliaceum* (broomcorn millet), *Triticum aestivum* (bread wheat), *Hordeum vulgare* (barley), *Glycine max* (soy bean) and *Fagopyrum esculentum* (buckwheat) at the Haimenkou site are the first identification of these species in archaeological context in Yunnan Province. It reveals the variety of crop plants manipulated by local people from late Neolithic period to Bronze Age.

Evolving rice cultivation systems, early results from the Lower Yangtze

Alison Weisskopf
(Institute of Archaeology, University of London (UCL))

The Early Rice Project, at the UCL Institute of Archaeology, is clarifying the origins of Asian rice agriculture. Rice can be cultivated in a range of arable systems, including upland rain fed, lowland irrigated and deep water. Our project aims to reconstruct early rice cultivation systems, and to better establish how ancient arable rice systems be seen using archaeobotanical data. One method is by building modern analogues using associated crop weeds, and phytolith morphotypes found within each type of cultivation regime. Different cultivation systems produce different flora assemblages. Rice weeds and sediment samples have been recorded and collected from a variety of arable systems in India, China, Thailand and Laos to produce modern analogues. These have been used to analyse archaeological samples. Investigations of archaeological phytoliths

from the Lower Yangtze region of China are revealing how the cultivation of rice changed over time, with early cultivation in small, irregular, dug-out paddy fields in the Lower Yangtze from c.4000 BC, providing a means for the careful control of water conditions.

Thursday, 7 June (Morning)
Venue: Museum

Title of Session:
Seafaring and long-distance interactions in ancient East Asia

Organizers:
Uozu Tomokatsu (Otemae University), Ishimura Tomo (Nara National Research Institute for Cultural Properties), Nakamura Daisuke

Session Abstract
In the early 20th century a German ethnologist Kurt von Boeckmann has defined that cultural realms of the sea falls into four categories; fishery culture, seaborne culture, naval culture, and culture of maritime arts. The sea has provided seafood, routes for trade, colonization and war, and also provided inspiration of human creative genius (such as literature, music and fine art) throughout the long history of mankind.

In the region of East Asia, a line of islands including Japanese archipelago, Ryukyu Islands and Taiwan creates a partially enclosed sea from the Pacific Ocean, like the Mediterranean Sea. This marginal sea, comprising Japan Sea (the East Sea), Yellow Sea and East China Sea, led to numerous historical and cultural connection between the societies located around its shore in ancient times. These societies shared common cultural background such as rice cultivation, Buddhism and using Chinese characters under strong influence of Chinese civilization on one hand, but they also exhibited rich regional diversity on the other hand. This region goes from the Subtropical to Subarctic Zones, so there is a wide range of ecological conditions that led to regional characteristics. In addition, this region is adjacent to the realm of Austronesian-speaking peoples in the Tropical Zone, the realm of the Northern Peoples such as Aleut and Tungus in the Arctic Zone, and the realm of nomads in the Eurasian steppe and desert climates. Such geographical condition of the marginal sea region has been a source of historical and cultural dynamism in East Asia.

This session showcases papers about the archaeology of seafaring and long-distance interactions in the marginal sea region in East Asia. It may include papers of a wide array of topics and themes such as fishing, seafaring technology, migration, warfare, cultural exchange and maritime art.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Tomokatsu Uozu: "Hakata Bay trade" and the beginning of burial iron

tools in the Kofun period

9:30~9:50: Nakamura Daisuke: Trade innovation between coastal region and inland in Northeast China

9:50~10:10: Tomoko Nagatomo: The technological communication and migration through an inland sea -Beginning of the iron implements production in Kinki Area-

10:10~10:30: Randall J. SASAKI The Archaeological Studies on Two Mongol Invasion Sites – Japan and Vietnam

10:30~10:45 Tea & Coffee

10:45~12:30: Discussion

Abstracts

"Hakata Bay trade" and the beginning of burial iron tools in the Kofun period

Tomokatsu Uozu
(Otemae University, Japan)

How was the society of the Kofun period formed? What kind of social meaning did have buried various iron tools in Japanese keyhole tombs? The author has thought that the key to solving this problem is long-distance sea exchange which increased rapidly from the latter Yayoi period to the beginning of the Kofun period.

First, development of "Hakata Bay trade" hypothesis which is a typical sea exchange in this time is retrospect. And, the author considers how it can be analyzed from archaeological materials.

Secondly, the aspect of iron tools production in this time is investigated. Introduced ironware and advanced forging are established along coastal areas of Genkai-nada (the north Kyushu), Setonaikai inland sea and the Sea of Japan. This is in stark contrast to the method of making iron tools which developed in the Middle Kyushu area.

Moreover, the situation of burial iron goods in the formation of keyhole tombs is reexamined. The author's idea is that the "rule" of burial iron goods was formed just before the establishment of stereotyped keyhole mounds. This "rule" was not something single, but plural "rules" in the beginning was integrated gradually. These "rules" may not that Kinki area established monopolistically at first, but centripetal force of the Kinki area fixed from some stages in the former Kofun period.

The conclusions are below: the formation of the Kofun society can smoothly understand as a result of accomplishment in the social network symbolized by "Hakata-wan trade" from the situation of practical ironwork. Advance of the smithery is also one of the results raised by the developed trade between Korean peninsula and Japanese archipelago. But it can't also be denied that there is a gap to the development of the "rules" of the burial goods only with this. The redistribution hypothesis of the prestige goods adopted by some researchers on the Kofun period is one of the solutions for burying this gap. However, if this phenomenon can be understood as the formation of the social capital which accompanied the network, many matters will be explained.

Trade innovation between coastal region and inland in Northeast China

Daisuke Nakamura
(Saitama University)

At about 10-9th century BC, people of Xiajiadian Upper Culture (XUC) which is distributed in north part of Liaoxi area has started horse riding, besides they could do long distance trade with people of Baijinbao Culture in the Songnen plain which is 700km away. Beside, their symbolic bronze implement are accepted in cultures of Liaodong inland. These cultures were located in inland, however, also the influence extend to cultures in the coastal region.

People of Shuangtuozi III Culture (about 10-9th century BC) in Liaodong peninsula used I-shaped bone fishhooks by tradition. However, after influence of XUC in bronze trade and making, bone fishhooks change from I-shaped to J-shape while coexisting momentarily. Although J-shaped hooks are not confirmed in XUC, they appeared as stone molds in Yanshang area at about 13th century BC which is influenced by Northern Bronze Culture earlier than XUC. In addition, at 6th century BC, bronze fishhooks and their molds appeared in the Liaodong Peninsula and inland. Some of them are large size of 6-7cm. Since large size hooks are unnecessary in inland fishing, it seems that large size J-shaped fishhooks in inland were made for supplying to coastal regions.

By the way, since harnesses and carriages appeared in Liaodong inland at 6th century BC, it seems that the use of horses spread at that time. The breeding of horses requires salts, however there are no salt lakes in Liaodong inland, differently from northern part of Liaoxi. Therefore, it is suspected that people in inlands started to obtain salts from coastal regions by exchanging bronze fishhooks directly in addition to raw materials of bronze. Besides, in the southern part of Liaoxi and Liaodong, ornaments of marine products such as shrimp and ray appear in addition to animal-shaped ornaments which common with steppes. Considering it and commonality of pottery between Liaodong inland and peninsula, they show that frequency of exchange is higher at that time.

In conclusion, the starting of use of horses varies not only inland exchange, but also exchange between inland and coastal region. The content of "Book of Han" which salts was specialty of Liaodong area might be originated from the change at that time.

The technological communication and migration through an inland sea -Beginning of the iron implements production in Kinki Area-

Tomoko Nagatomo
(Otani University)

In Japanese archipelago, Iron implements and simple forging technology appeared in Yayoi period. After the introduction of iron implements, material of tools changed from stone to iron at first. Besides, manufacturing of many artifacts and specialization, such as wooden tools and jasper beads also changed.

Stone implements disappeared until the middle stage of late Yayoi period almost at the same time, almost all over the Japanese archipelago excluding Southern Kyushu.

However the beginning process of forging was not same in Japanese archipelago. There were much iron implements and high technique in Northern Kyushu, Sanin and Setouchi area where are geographically near Korean peninsula. In contrast to these, there were little iron implements and low technique in Kinki area where is the center of social complication in Japanese archipelago and more eastern region like Kanto area.

Thereupon, I will examine by comparing the different beginning process of forging between Kyusyu area which is nearest Korean peninsula and Kinki area which becomes the center of Japanese archipelago in Kofun period. In this presentation, I will focus on the role of iron implements for manufacturing and specialization of daily artifact including migration of people who have technique of forging through inner and outer sea.

The Archaeological Studies on Two Mongol Invasion Sites – Japan and Vietnam

Randall J. Sasaki
(Institute or Nautical Archaeology at Texas A&M University)

The story of the 13th century Mongol Invasion of Japan and the fabled storm known as *Kamikaze* that destroyed the invading fleet became a popular tale. This was a significant event in Japanese history and it has shaped the ethos of later Japanese society. On the other hand, the Mongol Invasion of Vietnam has yet to gain much attention, considering the fact that the battle at Bach Dang River is regarded a symbol of national independence. It is recorded that Vietnamese General Tran Hung Dao devised an ingenious strategy to destroy the Mongol navy by setting up traps of wooden stakes along rivers to immobilize enemy's ship.

For long, the only means of studying these events was through reading historical documents. However, recent technological advancements led to the discovery and new method of aiding in interpreting the ancient battles. Underwater archaeological research has been conducted at Takashima Underwater Site of Nagasaki Japan for three decades and the site has yielded hull remains of possible Chinese ships. The hull and artifacts uncovered at the site illustrate a vivid story of the invasion. In Vietnam, the Bach Dang River Survey Project was initiated in 2009. This project aims to reconstruct the battle-field through the remains of above-mentioned wooden stakes which was part of the trap set up by the Vietnamese General. This research reveals that human utilized their profound knowledge of a river system to their benefit even to alter the course of history.

These two sites, Takashima Underwater Site of Nagasaki and Back Dang River Battle Site of Vietnam, share many similarities but also exhibit marked differences. Because of their historical proximity, the sites can provide excellent case for a comparative study and any further research at both sites should be examined closely together.

Thursday, 7 June (Morning)
Venue: Community Center

Title of session:
Issues in Japanese Archaeology (General Session)

Chair:
Mark Hudson (University of West Kyushu)

Timetable
9:00~9:10: Session introduction
9:10~9:30: Aaron Harper Blood and Iron: Formation of the Yamato Through Warfare and Metal Trade in Yayoi Japan
9:30~9:50: Elena Solovyeva Eyes from the past: a variant of Jomon ceramics interpretation
9:50~10:10: Lindsey Friedman Isotopic Investigations into the Jomon-Yayoi transition in western Japan
10:10~10:30: Mark Hudson The Nagabaka site and socio-ecological resilience in Miyako prehistory
10:30~10:45 Tea & Coffee
10:45~11:05: Mauricio Hernandez Preliminary analysis of activity-related musculo-skeletal stress markers via cross-sectional geometry in Edo-period inhabitants in Miyako Island, Japan
11:05~11:25 Mizuki Hattori The exchange of shell bracelet which gathered in the sea of Okinawa islands in the period parallel with Yayoi -Specially Conomurex luchuanus shells are main points of an argument.-
11:25~11:45: Tim 't Hart: Forager-farmer interaction in Northern Kyushu: Towards a model of cohabitation
11:45~12:05: Irina Zhushchikhovskaya Lowere and Upper Ento Styles pottery: Long term dynamics
12:05~12:25: Olga Danilova and Irina Zhushchikhovskaya On the Problem of Cultural Links Between Jomon Population and Ainu People: in the Light of Decoration Traditions

Abstracts

Blood and Iron: Formation of the Yamato Through Warfare and Metal Trade in Yayoi Japan

Aaron Harper
(California Department of Parks and Recreation)

The acquisition of metal was central to the development of Yayoi society. Bronze and iron were imported from the mainland and arrived in finished and unfinished forms. Objects such as Han Chinese bronze mirrors enhanced the social status of Yayoi

chieftains. Later, iron became so important that the lack of access to it led to what is known as the Wa Disturbances culminating into a centralized Yamato society under Himiko. Whether acquired as diplomatic gifts or brought in by Korean immigrants, more metal objects exist than can be accounted for from these sources.

The Japanese lacked material goods to equitably trade with the Han Chinese and kingdoms on the Korean peninsula. In return for the valuable resource, however they had something else to offer. Years of internal conflict in latter half the Yayoi period forged a strong fighting force that could be levied on the mainland as a conscript army in return for Chinese and Korean metal goods.

Eyes from the past: a variant of Jomon ceramics interpretation

Elena Solovyeva
(Institute of Archaeology and Ethnography,
Siberian Branch of Russian Academy of Science)

Possibly, one of the most known types of dogu figurines is dogu in «snow google» as it is accepted to name them. Unusual image of the eyes throughout the researching history was drawn by attention of scientists. It's very interesting that there is enough ceramic vessels of Jomon period which remind «snow google». Some Japanese researchers spend comparison of a structure of vessels with a structure of a human body where the top part of a vessel corresponds with a head of the person, bottom – with a trunk. Thereupon it is possible to speak about special type of the image of the eyes, found out on ceramic ware.

Isotopic Investigations into the Jomon-Yayoi transition in western Japan

Lindsey Friedman
(University of Cambridge)

Transitions to agriculture mark a paradigm shift in the lifestyle of a population. Debates surround the nature of the Japanese transition to farming; was it gradual or revolutionary? This study uses stable carbon and nitrogen isotope analysis of human and faunal bone collagen to examine the potential for dietary change over the Jomon-Yayoi transition in western Japan. This transition represents the shift from the complex hunter-fisher-gatherer Jomon period (14,500-800 B.C), to the establishment of rice agriculture during the Yayoi period (800BC-300AD). Archaeologically, this shift was accompanied by new pottery, tools, iron, bronze, new settlement patterns, religion, and language, and spread over nearly all of Japan in less than 300 years. Although archaeobotanical evidence for domesticated rice and millet predates the transition, these scattered and infrequent finds are interpreted as the results of casual exploitation by hunter-gatherers. Despite the existence of narratives that support a "Neolithic Revolution" and other models which highlight continuity between the periods, the mechanism of the introduction of agriculture to Japan is still unclear. This new data will

elucidate dietary aspects of the Jomon-Yayoi transition directly from the human remains with the aim to determine the mechanism for this transition. This project was funded by the University of Cambridge, Darwin College (Cambridge) and the Japan Foundation.

The Nagabaka site and socio-ecological resilience in Miyako prehistory

Mark Hudson
(University of West Kyushu)

This paper will present results of excavations at the Nagabaka site, Miyako Island, Okinawa Prefecture. Nagabaka is the earliest archaeological site known from Miyako and has the longest occupational sequence with remains dating from 4200 BP through to the eighteenth century. The results from Nagabaka will be discussed in terms of how they help us understand the resilience of socio-ecological systems on a small island. Resilience is defined as the amount of change a system can absorb and remain within the same regime. Analyses of faunal and human skeletal remains will be used to argue that the archaeological record from Nagabaka suggests high resilience, despite what should have been a very challenging small island environment. Some reasons for this high resilience will be suggested following the framework established by Walker and Salt in *Resilience Thinking* (2006).

Preliminary analysis of activity-related musculo-skeletal stress markers via cross-sectional geometry in Edo-period inhabitants in Miyako Island, Japan

Mauricio Hernandez
(University of Cambridge)

Musculo-skeletal stress markers (MSMs) in present and past human populations are often utilized to chronicle physically-demanding living and working conditions, as bone tissue is greatly affected by loading strains. Differences in patterns or intensity of MSMs overtime can serve as evidence of changes in subsistence, sociopolitical condition, cultural notions of sexual division of labor among other factors.

From the 17th through the 19th centuries, Miyako Island, located in the Ryukyus served as a satellite state governed by the Satsuma domain of southern Kyushu. During this period, it is traditionally believed that the island and its inhabitants were economically exploited due to their strategic location, in order to resell Chinese goods in the Japanese market for substantial profits.

Miyako Island would have been considered one of the less affluent possessions of the Satsuma domain, as it was located relatively far from the center and thus would not have profited as much from trade as islands located further north. The Nagabaka site, located in the north of the island and dating to this period, is a good location in which to test the hypothesis that under Satsuma rule, levels of MSMs would have been moderately high, as the population would have had to work more in order to send

tribute back to the center but could not benefit from trade networks established by the Satsuma.

To evaluate MSM levels and elucidate possible routine strenuous activities, moulds of bone contours were obtained from limb bones at the mid-shaft, where the highest levels of loading usually take place, and analyzed using imaging software to calculate shape and robusticity. This study seeks to corroborate previous findings of the standard of living of commoners at the Nagabaka site via dental pathology, and nutritional stress, to better understand patterns of activity in the island during Satsuma occupation.

The exchange of shell bracelet which gathered in the sea of Okinawa islands in the period parallel with Yayoi -Specially Conomurex luchuanus shells are main points of an argument.-

Mizuki Hattori
(Graduate School of Humanities, Kyushu University)

In Yayoi period of Japan (about 2000~3000years ago), many shell bracelets which gathered in the sea of Okinawa islands are brought in Japanese Kyushu area. Specially, Conomurex Luchuanus shells (These are conch shells which measures 10~20cm) had brought over to Kyushu since the last of the Jomon period. The distribution of these concentrated in north and north-west Kyushu.

Viewed in morphology, these Shell bracelets can be distinguished into 2 groups. One is the back side form which made from outside part of conch shell. The other is front side type which made from inner part of conch shell. In the early Yayoi period, back side type of Shell bracelets distributed to north west Kyusyu. And in the middle Yayoi period, much front type of shell bracelets had distributed and it was buried in a coffin which shaped jar in northern Kyusyu. After the last Yayoi period, very little front type of shell bracelets distributed throughout Kyushu but many back type of shell bracelets concentrated in Tanegashima island where is near the south-east of Kyushu. At the sites in early part of the Late Shell-midden period of Okinawa which ran parallel with Yayoi period, there are many finished and unfinished shell bracelets in Okinawa islands. People may have produced many front and back type of Shell bracelets in Okinawa islands.

This study investigates the relationship of product and consumption between Okinawa islands and Kyushu. In this presentation, I attempted to compare an amount of finished and unfinished Shell bracelets in Okinawa islands with those of Kyushu. In consequence, the series of phenomenon indicate that the people in Okinawa islands supply the specific people in Kyusyu with finished or unfinished (but it is not raw shells) Shell bracelets. But sometimes it is considered that the exchange between Kyusyu and Okinawa area had discrepancies among maker and consumer.

Forager-farmer interaction in Northern Kyushu: Towards a model of cohabitation

Tim 't Hart
(Kyushu University)

In the Japanese islands, rice agriculture was first introduced in Northern Kyushu by immigrant farmers from the Korean peninsula. These farmers interacted with the native Jomon forager population, eventually resulting in the adoption of agriculture and the beginning of the Yayoi Period in Northern Kyushu. The nature of this interaction and the relationships that developed between foragers and farmers is a matter of much debate among researchers. Topics that are often discussed vary from the size of the incoming group of migrants, to the influence of the native Jomon population on the emerging Yayoi culture. These discussions are fuelled by ambiguous archaeological data that can often be interpreted in more than one way.

In European archaeology, forager-farmer interaction models have been conceived (such as Dennell's agricultural frontier model or Gregg's competition/mutualism model) that suggest possible forms of interaction and which can be used as a framework to explain the transition to agriculture. Some of these models have recently been used to investigate the transition to agriculture in the Japanese islands as well. However, a problem with these models is that they do not offer a clear method to interpret the available archaeological data, and when applied, the archaeological data is often molded to fit a phase or stage within the model.

In this paper, archaeological data from Northern Kyushu is examined. It is argued that the possibility exists, that immigrant farmers lived together with native Jomon foragers in Jomon settlements. This type of interaction (cohabitation) is missing from existing interaction models and is therefore easily overlooked. This paper further discusses a method to identify cohabitation in the available archaeological data and suggests that Burmeister's migration theory (which uses Bourdieu's concept of habitus) can be used to identify cohabitation as well.

Lower and Upper Ento Styles pottery: Long term dynamics

Irina Zhushchikhovskaya
(Institute of History, Archaeology and Ethnology of Peoples of Far East,
Far East Branch of Russian Academy of Sciences)

The paper is based on the results of investigations of pottery collection of Ookubo site (Aomori pref.) stored in the National Museum of Japanese History. The database includes 50 vessels of Lower Ento (Early Jomon) and 58 vessels of Upper Ento (Middle Jomon). This case is perspective to study the transformation of local pottery-making traditions during long time.

Research tasks are: 1 - to determine the temporal changing of Ento style from Early stage to Middle stage, 2 – to correlate Lower and Upper Ento traditions with basic temporal and spatial tendencies of Jomon pottery dynamics, 3 – to compare Ento style

traits with synchronic Neolithic pottery traditions of East Asian region.

Lower Ento is presenting certain stage of Jomon pottery production development, in particularly, in Tohoku area. It continues, improves and transforms the ways of pottery-making that started in Incipient and Initial periods. Most important innovations of Early period are concerning to pottery technology and decoration.

Upper Ento compared with Lower Ento shows that the changing in pottery technology is minimum one concerning to ceramic pastes only. The changing in pottery morphology is gradual evolution of vessel's structure and proportions. The changing in pottery decoration is most significant concerning to technical methods, motifs and composition principles. Upper Ento demonstrates the flourishing appliqué decoration sharing this trait with other pottery styles of Middle period. Most specific feature of Lower Ento decoration is wide spreading of compositions imitating various cord structures (knots, loops, etc.).

The dynamics of Lower and Upper Ento pottery corresponds in some degree to main trends of the dynamics of pottery traditions of Neolithic cultures of North-east China, Korea peninsular

On the Problem of Cultural Links Between Jomon Population and Ainu People: in the Light of Decoration Traditions

Olga Danilova &
Irina Zhushchikhovskaya
(Institute of History, Archaeology and Ethnology of Peoples of Far East ,
Far East Branch of Russian Academy of Sciences)

The problem of relationships between Neolithic Jomon culture and Ainu as native people of Japanese archipelago is actual and disputable one in modern archaeology and anthropology of East Asia. Our research considers this problem focusing the data on decoration and design traditions. The research base includes: 1 – pottery collections from Middle-Final Jomon sites, mostly of Tohoku region; 2 – the Dogu figurines from Middle-Final Jomon sites (after published materials); 3- the objects of Ainu material culture - traditional costume, wood-carving utensils, and some others (after published materials).

Our research is concentrating on technical methods and structural principles of decoration compositions, the set of decoration-forming elements and ways of their combination. Important methodical approach is the applying of some terms of mathematical (geometric) knowledge to the descriptive characteristics of decoration compositions.

Significant resemblance between Jomon and Ainu decoration compositions is concerning to technical specification. Combination of different techniques and surface factures provides the effects of the emphasizing of basic graphical pattern in the contrast with homogenous phone infilling.

Main similarity of compositional structures of Jomon and Ainu decoration is the usage of symmetry of same types (rotational, mirror, transfer). Basic elements of Jomon and Ainu decoration are the spiral, straight line, circle, dot, hypocycloid (cusped) figures.

The lasts are most specific for Jomon and Ainu arts and presented by certain images – deltoid (3-cusped figure), astroid (4-cusped figure), and others. Important feature shared by Jomon and Ainu decoration patterns is plastic involving of the elements providing the continuity and integrity of the composition. As a whole, comparative analysis of decoration traditions of Jomon culture and Ainu people allows to suppose close, probably genetic, links between the both.

Thursday, 7 June (Morning)
Venue: Kyushu U. Nishijin Plaza

Title of Session:
China and neighbouring regions 1

Chair:
Sarah Milledge Nelson

Timetable
9:00~9:10: Session introduction
9:10~9:30: Zhengdong Guo The Preliminary Analysis on the Tomb bricks of Han Dynasty and Tang Dynasty from Shenmingpu Site, Henan Province, China
9:30~9:50: Keith N. Knapp Han Dynasty Regional Differences: A Comparison of Model Buildings from Henan and Guangdong Tombs
9:50~10:10: Allison Miller Architecture in Archaeology: the Logic of Spatial Design in Early Imperial Chinese Tombs
10:10~10:30: Armin Selbitschka Divining or Playing? The *liubo* gaming boards in their archaeological contexts
10:30~10:45 Tea & Coffee
10:45~11:05: Fan Zhang Performing Drama for Ancestors: Representation of Theater in Jin-dynasty Tombs in Shanxi
11:05~11:25: Ariane Perrin The newly discovered Koguryo painted tomb found at Okdori in North Korea
11:25~11:45: Mari Omura Braids excavated in the Korean peninsula-a piece of evidence concerning ancient braiding techniques throughout East Asia-
11:45~12:05: Sarah Milledge Nelson Ritual Sites in East Asian Archaeology
12:05~12:30: Discussion

Abstracts

The Preliminary Analysis on the Tomb bricks of Han Dynasty and Tang Dynasty from Shenmingpu Site, Henan Province, China

Zhengdong Guo
(Boston University)

In this research, some tests including analysis of water absorptivity, compressive strength, ingredient, physical structure, firing temperature, and porosity, was conducted on the tomb bricks of Han Dynasty and Tang Dynasty, which were excavated from Shenmingpu Site, Nanyang District, Henan Province, China, in 2007. Through the comparative tests, it shows both Han and Tang tomb bricks were made by the similar clay material. The structure and firing temperature of these bricks were also similar. The DIL result suggests that the firing temperature was almost as high as 1100□. However, been made in different firing atmosphere, the physical performance of Han tomb bricks is better than Tang tomb bricks. Meanwhile, the performances of these bricks were lower than the average level of common upper-ground construction bricks. This research may help us to understand more about manufacture of ceramic building material and also ancient people's attitude toward to funeral.

Han Dynasty Regional Differences: A Comparison of Model Buildings from Henan and Guangdong Tombs

Keith N. Knapp
(The Citadel, The Military College of South Carolina)

One of the signature grave goods of Han Dynasty (206 BCE – 220 CE) tombs are architectural models of buildings, such as granaries, towers, animal pens, courtyard houses, wells, and so on. They have been found in graves throughout the territory of what was Han China. Nevertheless, the highest concentrations of these artifacts seem to be in present day Henan and Guangdong provinces. This means that our richest samples come from an area in the heartland of the Han and another on the empire's periphery.

By comparing the architectural models excavated in Henan and Guangdong, this paper will explore what the model buildings tell us about social life in these two places. I will accomplish this by answering the following questions: what class of people had architectural models buried with them? Are the typologies of architectural models in the two areas different? Do the two regions' architectural models differ in size and detail? What types of buildings were most likely to be included in each region's tombs? I will argue that, despite being on the frontier, Guangdong model architectural structures tend to be focused on agriculture and animal husbandry. Although there are a number of models of fortified courtyard houses, most structures are residences and animal pens, or buildings that fulfilled both functions. In stark contrast, despite being in the center of the empire, a number of the architectural models in Henan are towers that have a pronounced military function. Furthermore, the Henan structures are much larger, more elaborate, and much more lavishly decorated. Obviously, they were of much greater importance as status items in Henan than in Guangzhou.

Architecture in Archaeology: the Logic of Spatial Design in Early Imperial Chinese Tombs

Allison Miller
(Southwestern University, Georgetown, TX USA)

Current scholarship on early imperial archaeology has documented dramatic shifts in the layout of elite tomb space during the Western Han. The reasoning behind these shifts has remained elusive. Changes in layout design have not been found to correlate meaningfully to technological innovations nor to trends in architectural practice. This paper will present new evidence that administrative laws enacted during the reign of Emperor Jing can explain programmatic shifts in the layout design of mid-Western Han tombs. To support this claim, this talk will analyze the placement and typologies of mortuary goods in several royal tombs as well as the sequence of royal tomb dating. It will then demonstrate how this evidence can be linked to historical data from the early imperial period. This paper will explore tomb sites' important function in the early empire in shaping and defining elite communities as sites of ritual, gift exchange, and political expression.

Divining or Playing? The liubo gaming boards in their archaeological contexts

Armin Selbitschka
(Ludwig-Maximilians-University Munich)

Many tombs discovered during the last thirty or so years brought *liubo* 六博 boards or even whole sets including token and / or playing sticks to light. Several graves also provide us with pottery models of two persons sitting by a *liubo* board. The divinatory application of the *liubo* game had long been suspected and eventually was confirmed by a spectacular find in 1993. Tomb no. 6 (ca. late 1st century BCE through early 1st century CE) at Yinwan in Jiangsu province yielded a wooden tablet inscribed with a so-called TLV diagram as seen on *liubo* boards as well as accompanying explanations. The latter describe certain actions that required divination while offering auspicious or inauspicious answers. Since each line of the diagram is explicitly correlated with a binome of the sexagenary cycle, diviners could locate the days in question in the diagram and come to a conclusion based on the explanations.

It is doubtful that the game exclusively served divinatory purposes as textual evidence partially attests to its entertaining function at aristocratic banquets; an aspect largely neglected by scholarship. By correlating *liubo* boards and *liubo* models to the archaeological evidence from the respective tombs, I shall demonstrate that the game in the context of burials usually had little to do with divination. Surrounded by food containers and drinking vessels as well as figurines of servants, the gaming boards and models seem to have symbolized an element of amusement. Thus, the divinatory function did not extend into the grave; there an individual object was just another burial good.

Performing Drama for Ancestors: Representation of Theater in Jin-dynasty Tombs in Shanxi

Fan Zhang
(Smith College, USA)

During the Jin dynasty (1115-1234), the performance of *zaju* (variety plays) dramas became an indispensable part of village theater and temple fairs in southern Shanxi. Recent archaeological discoveries have shown frequent representations of theater in local tombs in various forms such as brick reliefs of actors, miniature stages, and murals of stage scenes.

Focusing on the important finds from the Duan family tombs near Linfen, Shanxi, this paper examines how local villagers incorporated theatrical representations into pictorial and architectural programs of their tombs, as well as how the development of sheltered stages made available new representational models for the mortuary art. The parallels between the scheme of representing performance space in tombs and that of presenting drama at temples suggest a close link between burial ritual and temple theater of the time. If temples and shrines were places for communities and villages to present plays to their deities, then tombs were places for individual families to communicate with their ancestors. Living in an era full of uncertainties, local people created a ceremonial theater in their tombs, possibly as an efficacious means of appealing for ancestral blessings. This new practice of representing theater in underground chambers not only draws our attention to the distinctive funerary and theater culture of southern Shanxi, but also suggests the rich visual dimensions of Jin-dynasty theater that crossed the boundaries of the human and the spiritual worlds.

The newly discovered Koguryo painted tomb found at Okdori in North Korea

Ariane Perrin
(Mixed Research Unit UMR 8173 "China, Korea, Japan" EHESS-CNRS)

Over the past few years, a handful of new Koguryo painted tombs have been discovered both in northeast China, at the former sites of the early Koguryo capitals, and in North Korea where the last capital of the Koguryo kingdom (traditional dates 37 BC-668 AD) was transferred in 427 AD in the vicinity of Pyongyang. Today, the total of painted tombs ascribed to this ancient kingdom amounts to 110 or so painted tombs.

This paper will present the newly excavated (2010) Koguryo painted tomb found at Okdori near Nam'po in North Korea, which was the burial site of local elite residents. Although the tomb's mortuary contents and furnishings are limited due to previous looting and the tomb itself has suffered considerable structural damage, its layout and remaining wall paintings offer important evidence in the study of Koguryo funerary art of the early period (4th-early 5th centuries AD). Of particular interest is the presence of the four guardian animals of the cardinal directions, the image of the deceased couple and the Chinese characters "wang" 王 and "dawang" 大王. By aiming to reassess the traditional classification of the tombs, this paper will compare the Okdori tomb with

other Koguryo tombs displaying similar structural features and iconographical elements, in particular those rare examples which bear the same inscriptions.

Braids excavated in the Korean peninsula-a piece of evidence concerning ancient braiding techniques throughout East Asia-

Mari Omura
(Gangoji Institute for Research of Cultural Property)

In Japan there were "loop-manipulation braiding techniques" since the constructive analysis of archaic braids (7-8th centuries) in treasures of the Hōryūji and Shōsōin had revealed it. Loop-ended elements were being adopted to make those braids. It is important to understand when and how these techniques had been developed and spread throughout East Asian countries.

Because they are found on excavated iron swords and armour of the Kofun period these techniques seem to be introduced at least the middle 5th century while the scale armour first appeared in Japan.

Recently some of the concrete evidence was confirmed in Korea for the first time: the one was excavated at Tomb No.8 at Yeongsandong. It was 4-ridge flat braid of the late 5th to early 6th century that had similar characteristics and texture of ancient armour's braids found in Japan. The other was found at Tomb No.44 at Goryeong Jisandong. In this case the braid is also found on the reverse side of a cross shaped strap union. It seems to be used to sew and/or to decorate narrow leather bands which were a part of horse straps. They are also the same kinds of braid made of silk threads.

These techniques had been highly developed during the Middle Ages in Japan not only in the field of armour but also in that of buddhistic art, for example ribbons to bind sutra scrolls and their covers.

Even though they are corroded, careful observation of organic materials bring us useful information to realize the characteristics of the period. It is significant that the above-mentioned two sites are said to have a relationship with the other regions which are located far from the Korean peninsula considering other excavated objects from the tomb.

Ritual Sites in East Asian Archaeology

Sarah Milledge Nelson
(University of Denver)

Ritual sites are increasingly being recognized in East Asian archaeology. This paper looks at several ritual sites in Japan, Korea, China and the Russian Far East, and discusses the various types of rituals that are implied by the remains. Differences can in the number and type of participants as well as the intention of the rituals, can be perceived. Grave-side rituals, shamanistic blessing rituals, and burials of shamans provide new data and new perspectives on ancient Asian ritual and beliefs.

Afternoon, Thursday 7 June, 2012

Thursday, 7 June (Afetrnoon)
Venue: Graduate School

Title of Session:
Archaeologies in North-East Asia and Mongolia

Chair:
Kazuo Miyamoto (Kyushu University)

Timetable
13:30~13:40: Session introduction
13:40~14:00: Tumen Dashtseveg Unique Bronze Age Archaeological site at Delgerkhaan Mountain, Southeast Mongolia
14:00~14:20: Keita Matsumoto The emergence of the Scytho-Siberian culture in Mongolia and the Karasuku period
14:20~14:40: Erdene Myagmar Dental diseases among the Xiongnu population from Central Mongolia
14:40~15:00: Hiroshi Yamaguchi Digital Documentation, Integration and Utilization of Cultural Heritage In Mongolia
15:00~15:15: Tea & Coffee
15:15~15:35: Shunsuke Watanabe Digital contentsizing using picture measurement of a cultural heritage in Mongolia
15:35~15:55: Alexander N. Popov Burial Traditions in the Ancient Cultures of the Russian Far East: Peculiarities and Pacific Perspective
15:55~16:15: Sergey Gusev Old Whaling Culture and synchronous cultures of North Beringia (investigations at Un'en'en site – the end of the 2nd millenium B.C.)
16:15~17:00: Discussion

Abstracts

Unique Bronze Age Archaeological site at Delgerkhaan Mountain, Southeast Mongolia

Tumen Dashtseveg
(Department of Archaeology and Anthropology, National University of Mongolia)

Since 2008 the Department's team carries out archaeological survey in Delgerkhaan mountain area located in border area of Tuvshinshiree, Munlkkhaan and Uulbayan soums, Sukhbaatar aimag, Southeast Mongolia. During the fieldwork were newly

discovered Bronze age cemeteries in Ulaanzuukh, Adgiin gol, Bulgin gol valleys, Xiongnu period cemetery in Engeriin Buuts valley, six unique construction from Qidan period in Togootin Gol and Bulgin Ekh valleys and inscriptions and graves from Mongolian period, and collected numerous stone tool finds in all the valleys of the mountain area.

In the paper I introduce preliminary results of excavations of graves in Bronze age cemeteries at Ulaanzuukh and Adgiin gol valleys of the mountain.

The graves excavated have 25m long and 8m wide slab stone rectangular enclosure. Inside the enclosure were found five graves located separately in around 30-50cm from each other. Each grave has external stone square shaped construction and the stone slabs put on top of each other in three or four layers. The deceased was buried face down with orientation to east. C14 analysis for human remains from graves show that the cemeteries go back to Bronze age (1400-1300 BC).

Grave construction and burial tradition, artifacts of the studied graves in both sites are similar, but notably differ from other well known cultural monuments: slab grave and figured grave monuments of Bronze age in East and Southeast Mongolia.

The distinguished graves features in the sites give us an idea about local variants of Bronze age culture in East Mongolia.

The wide distribution of different historical monuments in the Delgerkhaan mountain show its importance in Mongolian archaeological heritage.

The emergence of the Scytho-Siberian culture in Mongolia and the Karasuku period

Keita Matsumoto
(Department of Comparative Studies of Basic Civilization, Graduate School of Social and Cultural Studies, Kyushu University)

The Scytho-Siberian cultures spread over the Eurasian Steppe in the early first millennium B.C. These cultures had many common elements, for example the custom of horse riding, Kurgan and the animal styles. Recently in regard to the origin of these cultures, many studies have indicated the important of role of the eastern steppe, which includes Altai, Tuba and Mongolia, especially based on the excavation of the Arzhan kurgan. But very few studies explain the process of the emergence of the Scytho-Siberian culture in Mongolia, dealing with the period preceded the culture, the Karasuk period. This article intends to understand the process, analyzing bronze tools in Mongolia.

We find that the Karasuk period had two phases. In the first phase two excluding bronze cultures existed. The one was in Minusinsk and the other was in Mongolia. The culture in Mongolia had the ritualistic bronzes made by using complex casting technics. In the second phase these two cultures combined to a new bronze culture, which had more practical bronze tools and weapons than the cultures of the first phase. The period of the Scytho-Siberian culture, following the Karasuk period, each area in Mongolia had come to have own characteristic features in the bronze objects. Therefore we could indicate that the important change in quality of a bronze culture for the Scytho-Siberian culture happened in the Karasuk period. And there is possibility the emergence of local

features in the Scytho-Siberian culture in Mongolia was originated in the local identities based on a war-like character of this culture.

Dental diseases among the Xiongnu population from Central Mongolia

Erdene Myagmar
(Department of Archaeology and Anthropology, National University of Mongolia)

Forty four skulls (24 males, 17 females and 3 subadults) from the Xiongnu period (2nd BC to 2nd AD) unearthed during archaeological excavations in Central Mongolia were examined for the incidence of dental caries, calculus, paradontose, alveolar abscess, ante-mortem tooth loss, enamel hypoplasia and dental trauma.

Dental caries is observed in 27.4%, calculus - in 84%, paradontose - in 24.4%, alveolar abscess – in 31.1%, ante-mortem tooth loss – in 31.0%, enamel hypoplasia – in 20.4-23.5%, and dental trauma – 8 cases (6 small chips and 2 breaks) in the sample studied.

Results show a tendency of a higher percentage of the caries and significant high incidence of the calculus for men, higher number of teeth affected with paradontose and alveolar abscess for a woman. There is no significant difference in the distribution of the enamel hypoplasia and dental trauma. Distribution and patterns of the dental trauma suggest of accidental and household characters of the observed cases of this pathology.

The sexual difference in the development of dental diseases and an obvious unequal distribution of some oral pathologies among the Xiongnu population, is likely caused by the social and cultural factors of the Xiongnu society, including social structure, stratification and gender stereotypes, and may reflect different social role and life style of men and women and sexual discrimination in different aspects of life within the society. In general, analysis of the paleopathological traits observed on the human skulls from Xiongnu period show relatively low pathogen load level in relation to the infectious disease and metabolic disorders but suggest about some gender inequalities in the Xiongnu society.

Digital Documentation, Integration and Utilization of Cultural Heritage In Mongolia

Hiroshi Yamaguchi
(Japan Society for the Promotion of Science)

In Mongolia there are many cultural heritage to be handed down to the future. However, many of them are in danger of deterioration and loss. Therefore, it is important to digital documentation, integration and utilization of cultural heritage. This paper discusses this point. Specifically, we consider the integration and utilization of information using GIS and 3D digital documentation of cultural heritage has been carried out in Mongolia. Of course, since these methods depend on the cultural heritage surrounding environment, is not directly applicable to other areas. However, we hope that this study will contribute

to your activities.

Digital contentsizing using picture measurement of a cultural heritage in Mongolia

Shunsuke Watanabe
(Doshisha University Graduate school of Culture and Information science)

This survey aims at introducing 3D digital content in Mongolian cultural heritage and exploring the way to utilize it both scholarly and educationally.
Mongolia mostly consists of Mongolian nomadic. Because in the culture of nomadism people have their property in the form of movable asset, most cultural and social heritages are dependent on individuals. They do not have the principle of territoriality, which has been a prerequisite for the preservation of cultural heritages. It is also found that cultural heritages of the previous era was destroyed because of political factor. Thus, the means of restoration, which puts emphasis on buildings such as museums and the places where the heritages are located, makes it difficult to utilize moveable cultural heritages on the aspects of the preservation of cultural heritages and the utilization them for education. We have not proposed the method for taking an panoramic view of cultural heritages yet. The dissemination of the digital content is very important to provide this method in terms of academic field, preservation of cultural heritages and risk management. Three dimensional scan mainly uses laser at this moment.

However, the laser scan is designed to acquire the date on only coordinates but surface. Therefore, this survey is conducted with a photogrammetry by using digital cameras to acquire realistic information about a few immovable cultural heritages. One of the advantages of photogrammetry is to able to capture broad area as 3D information and high-definition color data in a balanced manner. Moreover, even though the survey is conducted outdoor, where it is difficult to secure an electric power supply, we do not need to have a difficulty in an electric power supply such as power generator, and can work effectively within a limited time frame because photogrammetry mostly uses cameras and is operated by battery. Photogrammetry also gets coordinate data by measuring the center of the target with total station, which makes it possible to examine the accuracy for 3D data archive of photogrammetry.

This report considers the way and result of the survey.

Burial Traditions in the Ancient Cultures of the Russian Far East: Peculiarities and Pacific Perspective

Alexander N. Popov
(Fareastern Federal University, Vladivostok, Russia)

In spite of the terribly acidic soils of the Russian Far East some cultures of the Neolithic (Boisman culture) and Paleometal (Yankovskaya culture) periods demonstrate very interesting burial complexes within the shell mounds. Elaborated toolkits, pottery, and

decoration make them very important for the social reconstructions and interregional correlations with burial complexes in the Far East (Japanese Archipelago) and Pre-Columbian America (Colombia, Ecuador, Peru).

Old Whaling Culture and synchronous cultures of North Beringia (investigations at Un'en'en site – the end of the 2nd millenium B.C.)

Sergey Gusev
(Russian Research Institute for Cultural and Natural Heritage)

In the 50th of the XX century J.L.Giddings and D.Anderson outlined in Alaska "Old Whaling Culture", it caused hot discussion about the beginning of whale hunting in Arctic regions. During 1997-2011 Bering Archaeological Expedition (BAE), Institute of Heritage, led investigations of ancient whale hunters' dwellings in Chukotka. Expedition 2007 was organized together with Alaska University (Fairbanks) and MAE (Kunstkamera). The site is situated at the seaside on the terrace near pebble-sandy beach. The total square is 15 000 sq.m.

Stone tools include: scraping knives, knives, arrow heads, javelin heads, harpoons on the blades, drills, chisels, scrapers, inserts of projectile points. Percussive platforms are grinded. A unique artifact is walrus tusk (49 cm long) graved in a seal-form with head and flippers at the ends. On both sides there are engraved scenes of whale and walrus hunting from the boats, sacred actions. We had a unique opportunity to find and investigate a well-preserved construction made of walrus os penis with a reindeer cranium between them; arrow heads, a knife and mussel shells were found around it – the Un'en'en sacral place. Together with walrus skulls this is the evidence of ritual sacral place site existence here. The whole construction stopped existence after a serious accident – earthquake which happened about 3000 years ago, as a result – giant stones (2 tons) were brought to the site.

Radiocarbon dates indicate the time of dwellings' life between the end of the 2nd – beginning of the 1st millenium B.C.

History of Un'en'en surroundings development in Holocene can be reconstructed on the base of geomorphologic investigations and regional paleolandscape schemes.

Sea hunters with a definite sea economy entered Wrangel island (Chertov ovrag), Koryakya seaside probably, areas to the south from Anadyr' gulf and up the Anadyr' river for 100 km.

Thursday, 7 June (Afternoon)
Venue: Museum

Title of Session
China and neighbouring regions 2

Chair
Jack Alexander Davey
(University of California, Los Angeles)

Timetable*

13:30~13:40: Session introduction

13:40~14:00: Guoding Song Early Pottery of Central China in Broad-Spectrum Economy: New Archaeological Discovery in Xichuan County of Henan Province, China

14:00~14:20: Nozomi Saito The Relationships among 'the Great Wall region' Seen from *Li* Vessel

14:20~14:40: Celine Yuen Yan Lai Reversed direction of contacts: the Shang reception to the ritual practices of the south during the late Anyang period

14:40~15:00: Francis Allard The Han Period Tombs at Luobowan: Archaeological and Historical Perspectives

15:00~15:15 Tea & Coffee

15:15~15:35: Jack Alexander Davey Social Change and the Malleability of Ritual in Iron Age Korea

15:35~15:55: Shota Fujimoto The inflow process of the bronze culture from the Korea peninsula to northern part Kyushu seen from the Korean bronze spear

15:55~16:15: Ken'ichi Sasaki: State Formation in Japan: A View from Eastern Periphery

16:15~17:00: Discussion

*Some changes after the book going to press. See pp.121-122. Apology for inconvenience.

Abstracts

Early Pottery of Central China in Broad-Spectrum Economy: New Archaeological Discovery in Xichuan County of Henan Province, China

Guoding Song
(Department of Archaeometry, Graduate University of Chinese Academy of Sciences)

The Kengnan Site in Xichuan County of Henan province, China, was excavated by the Department of Archaeometry of GUCAS in 2011. It contains cultural accumulations from Mid- to Late-Paleolithic and Neolithic age. In this site, along with the lithic remains including objects made of quartz, vein quartz and flint, food-production tools like stone saddle-quern and stone ball-quern, microliths, animal bones, baked earth, several early pottery flats were found. Most of the pottery is brown earthenware mingled with grits, red interior and brown or gray surface. From visual examination, the materials used are clay mixed mainly with quartz sand, occasionally mica or clam. Those pottery dates back to early-Neolithic age according to archaeological stratigraphy, as well as the characterization of the flats in comparison with previous unearthed early pottery in China. Its absolute date is approximately 10000-9000 BP, which are the earliest pottery found in the Hanjiang River valley. Scientific studies including luminescence dating, firing temperature, the type of raw materials used, the process of

preparing clay paste, as well as residue in the flats were carried out. Techniques applied are Thermoluminescence (TL), X-ray fluorescence spectroscopy (XRF), X-ray diffraction (XRD) and scanning electron microscopy coupled with energy-dispersive X-ray spectroscopy (SEM-EDX), and Gas Chromatography Mass Spectrometry (GC/MS). As we know, the use of early pottery is related to the origin of agriculture, which is the marker of the 'Cooking and Boiling Revolution ' in East Asia in late-Paleocene to early-Holocene. The flats excavated along with microliths, food-produced tools and animal bones in Kengnan Site demonstrate that the Broad-Spectrum economic model existed in transitional period of Paleolithic to Neolithic age. The scientific investigation of the pottery in combining with the other findings in this site will provide new evidence to research the activities of humankind in this period of time.

The Regional Interactions in 'the Great Wall region' Seen from Li tripod

Nozomi SAITO
(Graduate School of Humanities, Kyushu University)

This is study to investigate the regional interactions in the Great Wall region (China's northern border region) by using potteries. After the Late Neolithic Period, the Great Wall region; from south-central Inner Mongolia to Liaoxi region, became a mixed herding and agricultural societies and separated from agricultural society in the Central Plains because of the climatic change. And in the same period, the early bronzes were brought into China and after that some bronze cultures appeared which had large distributions. The regional interactions in this area during that period is a remarkable topic as one of approach to clarify the social change caused by such the change of economy and to define the local network on which such a long distance moving of bronze wares based. But, most of studies trying to know these relationships between some regions did no more than make such explanations, "some cultural elements spread". It is necessary to embody such 'some cultural elements'. In the Late Neolithic period; Longshan period, many people in the North China became to product and use a certain kind of unique potteries which had three hollow legs, that is the *Li tripod*. These potteries were generally used for cooking and had wide regional variations. But some of them had larger distributions than others and it seems to be caused by some contacts between different regions. In this paper, I firstly made classification of *Li tripod*s excavated in sites of the Late Neolithic Period and the Early Bronze Age located in the Great Wall region and then also checked the distributions of them. Not only comparisons between types classified morphologically, but also comparisons between some attributes allow us suppose some reasons of the large/small distributions of each types and attributes.

Reversed direction of contacts: the Shang reception to the ritual practices of the south during the late Anyang period

Celine Yuen Yan LAI
(Centre for East Asian Studies, Chinese University of Hong Kong)

In recent decades, the archaeological finds have substantially enriched our understanding of China during the Anyang period (c.1200－c.1045BC). The Anyang tombs in Henan present a range of material features comparable to the finds from the Yangtze River valleys to the south of the Shang domains. While it is conventionally understood the Yangtze groups were deeply affected by the northern ritual practices and material features, the excavation reports of two rich Anyang, or Anyang-affiliated, tombs made available recently provide a different perspective that will be the subject of the discussion. A large array of stone tablets found in tomb M1046 at Anyang Liujiazhuang makes reference to a ritual practice that had fallen into disuse in Henan centuries before the time of the tomb but had otherwise perpetuated in the western and southwestern parts of China. Tomb M1 at Luyi Taiqinggong, which is better known as the tomb of a person named Changzikou, features a sizable group of high-fired ceramics, which are unmistakably connected to the kilns developed in the mid and lower Yangtze regions. As both tombs fall on dates immediately before and after the Zhou conquest of the Shang, the evidence substantiates an argument that the Anyang elite showed an increasing degree of interests and reception to the southern ritual practices during the last decades of the Shang domination. While we are yet to explain for the emergence of such practices in the northern contexts, the social or political status of the Yangtze elite must have been given significant recognition in the north during the Shang-Zhou transition that further academic attention is due.

The Han Period Tombs at Luobowan: Archaeological and Historical Perspectives

Francis Allard
(Indiana University of Pennsylvania)

Abstract can be found on p.121
The editor apologise for inconvenience caused to Professor Allard and participants.

Social Change and the Malleability of Ritual in Iron Age Korea

Jack Alexander Davey
(University of California, Los Angeles)

The Korean Iron Age, defined here as lasting roughly 600 years (300 BC to 300 AD) inhabits an interesting space between the emerging elites and small farming communities of the late Bronze Age and the appearance of the strong, centralized

polities of the Three Kingdoms Period (Koguryŏ, Paekche, Silla, and a number of smaller iron producing centers collectively referred to as Kaya). The period is characterized as one of dynamic social change as contact between peninsular groups and China fluctuated, villages and towns coalesced into regional centers, and local elites extended their influence through control of iron and ceramic production systems.

Archaeologically, this change is reflected most clearly in the mortuary record of the southern portion of the peninsula. Beginning in the first century BC, early wood-coffin pit graves are gradually replaced by large cemeteries of densely clustered wood-chambered tombs containing an abundance of iron and ceramic objects. These grow in scale until by the fourth century massive elite tombs dominate hillsides while sprawling necropolises containing hundreds of lavishly equipped as well as more modest graves become the central features of emerging urban centers.

This paper seeks to review and assess theories of social and political organization for this period proposed by other researchers through a close examination of two cemeteries in the Yŏngnam region (southeastern South Korea). I interpret the spatial segregation and contrasting ritual practices in evidence at these sites as individual communities and local leaders re-configuring a common material culture in a variety of different ways to maintain and strengthen their positions in a period of uncertainty and social upheaval.

The inflow process of the bronze culture from the Korea peninsula to northern part Kyushu seen from the Korean bronze spear

Shota Fujimoto (Kyushu University)

The purpose of this study is to examine the process in which the bronze culture of the Korean Peninsula gets across to northern part Kyushu, and is established in that area.

It is known that the bronze culture of the Japanese Islands flows in from the Korean peninsula, and that the culture accomplished original development on the western part of Japan. However, it is not known not much well how and when the original development occurred.

One of causes is that changes of the bronze culture in the Korea peninsula are unknown.

This study clarifies changes of the Korean bronze spear which is one of the bronze artifact the changes of whose are unknown using the typology.

As a result, it turned out that changes of the Korean bronze spear follow the process in which the function as arms is lost. In addition, the process was divided into three kinds, decorative presentation occurred in the southern Korean peninsula, a miniaturization in the northern Korean peninsula, and enlargement in northern part Kyushu.

Therefore, it has been understood that regional difference in this area arose at this time, and also that the bronze culture of northern part Kyushu came to accomplish the changes which are different from the bronze culture of the Korean peninsula from the time of inflow

State Formation in Japan: A View from Eastern Periphery

Ken'ichi Sasaki
(Meiji University, Tokyo, Japan)

This paper discusses the results of archaeological investigations into the Omuro Cairn and Mound Group in the central highlands of Japan (ca. fifth to seventh centuries A.D.). In the present Nara, Osaka and Kyoto where the central polity existed the differences in the forms of mounds—keyhole-shaped with a circular rear mound, keyhole-shaped with a square rear mound, circular, and square—and in their sizes symbolized the social rank of the elite, with the keyhole-shaped with a circular mound representing the highest rank. In the case of Omuro, however, a rule concerning a social status and the mound form was not observed. Bronze mirrors, iron armor, and horse-trapping have been discovered in small circular tombs of 15 or so diameters. In fact, in eastern Japan, those buried in simple tunnel tomb dug into cliffs without mounds seem to have occupied the highest social status in their local regions owing to the deposit of decorated swords with the dead. The rule concerning the mound form and size was not as strict as previously assumed, and the power of the central polity during the Kofun Period may not have been strong.

Thursday, 7 June (Afternoon)
Venue: Community Center

Title of Session:
Theorising the Yayoi and Kofun periods: recent trends and prospects

Organizer:
Koji Mizoguchi (Kyushu University)

Session Abstract
The Yayoi and Kofun periods of Japan have attracted less attention internationally than the Jomon period, despite the popularity abroad of areal images of the Yoshinogari settlement and gigantic keyhole-shaped tumuli, which are defining traits of the Yayoi and the Kofun periods respectively. What is known even less is that archaeological evidence from these periods has been the basis for unique theory building concerning social hierarchisation, scale increase in social integration, and the development of social complexity. These theories often uniquely draw upon Marxist frameworks and are formulated by taking advantage of detailed contextual information made available from high-quality research/rescue excavations and fine-grained chronology. Further, we are currently witnessing the emergence of new trends, advocates of which are more adventurous and interpret archaeological evidence from perspectives radically different from what has been treated as the norm—Marxist-inspired historical reconstruction of the process of social development. In such new trends, issues concerning unintended

consequences of subtle changes in daily practices, various 'powers' generated through recursive entanglements between certain sets of symbols and acts, patterns of social formation that cannot be captured by pre-existing broad evolutionary terminology, for instance, are given special attention, and novel methodologies for handling them are being invented. This session attempts to showcase studies that exemplify such trends and explore the potential that the study of the Yayoi and Kofun periods has in making substantial contributions to the development of general theoretical archaeology.

Timetable

13:30~13:40: Session introduction

13:40~14:00: Kunihiko Wakabayashi: The model for formation of stratified society in Japanese early agricultural stage

14:00~14:20: Hitoshi Fujii: A re-examination of the kin- and social organization of the Yayoi period: a study of the position of the infant from the mortuary evidence

14:20~14:40: Naoko Matsumoto & Mariko Sasakura: Population movement and cultural dynamics in the Jomon and Yayoi societies: implications from demographic simulation

14:40~15:00: Takehiko Matsugi: Archaeological analysis of the relationship between demography and social complexity: Population increase and social stratification in the southern Kibi

15:00~15:15 Tea & Coffee

15:15~15:35: Hitoshi Shimogaki: A study of elite network systems in the Kofun period through the analysis of circulation and possession of bronze mirrors.

15:35~15:55: Jun Mitsumoto: Life, the social body, and power: Rethinking the Yayoi and Kofun periods

15:55~16:15: Koji Mizoguchi: Various uses of the dead and their resting place; or, Luhmann among the Yayoi people

16:15~17:00: Discussion (Discussant: Gina L. Barnes)

Abstracts

The model for formation of stratified society in Japanese early agricultural stage

Kunihiko Wakabayashi
(Historical Museum, Doshisha University)

The author would like to try to discus about the model of pre-state society, especially Japanese early agricultural society-Yayoi culture.

Middle-Late Yayoi society, BC1-AD2C, had been regarded as chiefdom society in Japanese archaeology. But in fact, the aspects in each local society are varied. It is true that in plain area where we can see many huge and core settlement sites or clusters of mounded tombs, which varies in each area, does show a certain leveled stratified society. But in most of such areas, there was few buried individual with special status goods like an established chief. In the several small areas where only one huge and core settlement site can be seen, we can see simple and established hierarchy through relationship

between settlements and groups, but those situations didn't continue so long. Furthermore, there were many small areas where we can't see any evidence for stratified society.

So, as a whole, Yayoi society was not a simple stratified society called chiefdom, but this lack of common structure in social stratifying was an important social factor in Middle-Late Yayoi society in Japanese archipelago.

So the ladder model of "band, tribe, chiefdom and then state" in neo-evolutionism cannot be used directly for Japanese early agricultural society. And it is more important view that what kind of new idea should be given for such wide society system where various types of social structure could co-exist.

A re-examination of the kin- and social organization of the Yayoi period: a study of the position of the infant from the mortuary evidence

Hitosi Fujii
(Kyoto Prefectural Board of Education)

This paper investigates the kin- and social organization of the Yayoi period, in which the process toward the emergence of the Japanese ancient state began.

A commonly-held view is that the Yayoi society can be characterized as the chiefdom stage in the neo-evolutionary stages of social development, and a model commonly applied is that large, kin-based corporate groups were gradually collapsed to increasingly autonomous patrilineal households during the Yayoi period. However, recent researches have revealed that the process was far more complicated and corporate principles continued to play an important role in the reproduction of social organization.

In order to examine the nature and scale of the basic unit of social organization, the way infants were buried is examined. It has been revealed that the infants above three years of age were treated differently from the younger infants. Combining this information with the examination of the location of the infant burials in relation to that of the adults, it has been revealed that the social status of the infants were not necessarily determined as birth-right. Rather, their position remained unstable, suggesting that an ascribed status-based social organization was not yet achieved.

It is concluded that a framework other than neo-evolutionary framework-based ones is necessary for fully capturing the nature of the Yayoi social organization.

Population movement and cultural dynamics in the Jomon and Yayoi societies: implications from demographic simulation

Naoko Matsumoto
(Graduate School of Humanities and Social Sciences, Okayama University)
Mariko Sasakura
(Department of Computer Science, Okayama University)

Based on the number of archaeological sites or pit houses, local population changes and possibility of migrations have long been estimated, but the mechanism of the demographic changes and its relationship with cultural changes have not yet fully investigated. With the aid of agent-based simulation, I will examine long-term consequences with varying parameters such as population size, fertility, mortality, incest rule and the rate of migration, and discuss their implications for understanding demographic and cultural dynamics in the Jomon and Yayoi societies.

Archaeological analysis of the relationship between demography and social complexity: Population increase and social stratification in the southern Kibi

Takehiko Matsugi
(Graduate School of Humanities and Social Sciences, Okayama University)

This paper examines the relationship between population change and the emergent social complexity in the southern Kibi (current southern coastal area of Okayama prefecture) from the early Yayoi period to the early Kofun period (from the sixth century BC to the third century AD) as has been recognized in the formation of chiefly burial mounds. The number of identified pit houses is used as a basis for estimating the past population. The result indicates that the sparse population of this area suddenly increased in the second century BC, leading to the increase of the number of competitive villages and the detachment of cemetery from the village. Further population increase and the development of large villages on the plains seem to be linked to the emergence of chiefly burial mounds in the cemetery. It is concluded that the most basic driving factor of social stratification from the late Yayoi period to the early Kofun period was a population increase.

A study of elite network system in the Kofun period through the analysis of circulation and possession of bronze mirrors.

Hitoshi Shimogaki
(Ritsumeikan University)

As has been pointed out repeatedly, it is characteristic of Japanese archaeological studies that they are based on accurate chronological system of remains through the meticulous typological investigation. By this, Japanese archaeologist enjoys the advantages of being able to relative-date important goods such as metal goods to such an accurately which physical-chemical dating —radiocarbon dating or so on— cannot allow, and also to investigate the mode of possession and the accumulation of symbolic meaning-based values by the long-term possession of the things through measuring of time gaps between its manufacture, acquirement, and deposition.

In this paper, I intend to investigate the internal constitution and the interrelationship of elite groups in the Kofun period through the analysis of bronze mirrors which were

the most crucial item in the investigation of this period. In particular, I analyze A) the Centre-Periphery relationships between the centre of the Kinai region which controlled over the Chinese and domestic mirrors(e.g import, manufacture and distribution) and many areas in Japanese archipelago, B) the long-term possession and use of mirrors in the elite groups in these areas, C) the social/political significance of mirrors in this period.

The paper will conclude that the because bronze mirrors played a crucial role in the self-identification of the elite groups, and also were moblised as the means of hierarchisation between these groups, the centre of the Kinai region which controlled over the distribution of mirrors could get a preferred, higher positioning in the emergent hierarchical structure increasingly.

Life, the social body, and power: Rethinking the Yayoi and Kofun periods

Jun Mitsumoto
(Archaeological Research Center, Okayama University)

This paper will present a new perspective on power in the Yayoi and Kofun periods in Japan in light of two theoretical frameworks of power in Japanese archaeologies.
The Yayoi and Kofun periods, most Japanese archaeologists recognize, were marked by the emergence of those in power, specifically the emergence of the Emperor. This traditional image of power, characterized by sovereignty, has been used as the theoretical basis of Marxist archaeology or the state formation theory as connected to processual archaeology. I consider this type of power as simply another part of a long history of power, as a type of ancient power, with the accompanying risk that it is cut off from the contemporary world.

An alternative image of power has been recently proposed. This theory regards power not as a possession but as minute and plural networks, and it attaches importance to the social technologies inherent in the relationship between life and social bodies as the field of power. The theoretical background of this theory derives from the "bio-power" that Michel Foucault described in the modern age, or the actuality of power in the bcontemporary world. This framework can be related mainly to post-processual archaeology: the archaeology of personhood, embodied archaeology, third-wave feminist archaeology, queer archaeology, and so on.

I argue that it is important to reexamine power in the Yayoi and Kofun periods, and to reconsider the contemporary significance of the archaeological discussion about power, not only in light of the first type of power but also according to the second type. Additionally, I will present arguments for the existence of the latter type—of immanent power inside the societies—in the Yayoi and Kofun periods, which may be regarded as phases of the social technologies that are part of transforming life to social bodies.

Various uses of the dead and their resting place; or, Luhmann among the Yayoi people

Koji Mizoguchi
(Kyushu University)

This paper argues that the trajectory of social and material transformations toward the emergence of the mode of social formation characterized as the early state can be understood as a sequence of episodes in which new sets of difficulties for the reproduction of discourses/communications emerged and were overcome by the adoption/invention of new strategies.

Such episodes left behind various material traces, amongst which the traces of mortuary practices offer us a particularly valuable evidence for their investigation; cemeteries were locales whose material settings embodied strategies to overcome general communicational difficulties through mediating mortuary discourses/communications.

By examining the mortuary evidence of the Yayoi and the Initial Kofun periods of Japan, and comparing them with outcomes of formal network analyses applied to data from northern Kyushu and western Japan, it will be revealed that the constitutive characteristic of the cemetery shifted from the locale structuring a certain mode of bodily act-based communications to the node of the symbolic representations of the 'world' in response to changing scale and structure of communications.

Thursday, 7 June(Afternoon)
Venue: Kyushu U. Nishijin Plaza

Title of Session
Anthropological and archaeological studies on the relations between South Korea and Japan from the Early Iron Age to the Three Kingdoms of Korea

Organizer
Hisashi Fujita and Hiroko Hashimoto

Session Abstract
There has been an active interaction and exchange of information in the field of archaeology between South Korea and Japan. Anthropological studies in South Korea had been limited because only a limited amount of ancient human skeletal remains had been excavated in the county. Approximately 10 years ago, a considerable amount of ancient human skeletal remains was excavated in the Nukdo site. We were involved in the organization and analysis of these remains. In 2004, we received a grant-in-aid for scientific research from the Japan Society for the Promotion of Science and began full-scale research on ancient skeletal remains from South Korea. In the process, we achieved a closer interaction with the Korean archaeological researchers and obtained many academic findings. This section discusses (1) the cooperation between the

Japanese and Korean researchers, (2) analysis of anthropological characteristics of Nukdo and Yean-ri human skeletal remains (from South Korea) from the perspectives of paleopathology, cranial morphology, and dental characteristics, (3) comparison with Northern Kyushu Yayoi and Jomon people from Japan, and (4) immigrants from the Korean peninsula and spread of agriculture. There will also be a discussion from the archaeological perspective regarding the characteristics of the Nukdo and Yean-ri sites, subsistence of people of those periods investigated from excavated artifacts, and various problems involving the nation building in South Korea. In addition, the social structure of the third to sixth century will be reconstructed from information about sacrificial burials performed during that period in South Korea.

Timetable

13:30~13:40: Session introduction

13:40~14:00: Hisashi Fujita: Nukdo and Yean-ri human skeletal remains from a paleopathological perspective" and "spread of agriculture to Japan

14:00~14:20: Kengo Ohno and Yoshinori Kawakubo: Craniofacial affinities between populations in western Japan and southernmost Korea around the Yayoi period

14:20~14:40: Hiroko Hashimoto: Morphological traits of Mandible and Dentition in human remains from Bronze Age to Iron Age between South Korea and Japan

14:40~15:00: Cho Seong won: The nature of the Tomb Site Yean-ri by considering of excavated relics

15:00~15:15 Tea & Coffee

15:15~15:35: Kim Su Whan: Human Sacrificial Burial in Ancient Korean Society

15:35~15:55: Chikara Inoue: The historical background of establishment and declination at NukDo site in South Korea

15:55~16:15: Akira Seike: The Burial Principle of the Chief's Tumulus in the Kofun Period:The Influence of Paekche—

16:15~17:00: Discussion

Abstracts

Nukdo and Yean-ri human skeletal remains from a paleopathological perspective" and "spread of agriculture to Japan

Hisashi Fujita
(Department of Anthropology, Niigata College of Nursing)

The human skeletal remains No. 117 were excavated from the Nukdo site in South Korea. The remains had signs of spinal caries such as destructive inflammatory reaction causing porous vertebral bodies, previous inflammatory reaction, and fusion of thoracic vertebrae. In Japan, the oldest known case of bone tuberculosis was from the Yayoi period, which corresponds to the time period of the Nukdo human skeletal remains. For dental caries, the prevalence was low at 6.4% in the Nukdo human skeletal remains and 8.1% in the Yean-ri human skeletal remains from the time period corresponding to the

Kofun period in Japan. In the Korean peninsula, agriculture had already begun during the time Nukdo people lived. Thus, Nukdo and Yean-ri people knew about agricultural farming. However, their caries rates were low, likely due to their strong dependence on hunting and gathering because the Nukdo and Yean-ri sites are close to the coast. In Japan, the caries rates were high in immigrants of the Yayoi period in Northern Kyushu. The Kofun human skeletal remains were excavated from the Miura Peninsula in Kanagawa Prefecture. The main subsistence of these people was thought to be hunting and gathering. The caries rate was low at 5.2% in the Kofun skeletal remains found mainly in the Kanto region. This finding supports the concept that their main subsistence was hunting and gathering. In Japan, even if agriculture began to spread widely in the Yayoi period, Yayoi and Kofun people must have thought about the resources of the places where they lived. They practiced a wide variety of subsistence activities. Some people practiced subsistence that greatly depended on hunting and gathering. Other people made changes to their subsistence activities toward agriculture.

Craniofacial affinities between populations in western Japan and southernmost Korea around the Yayoi period

Kengo Ohno and Yoshinori Kawakubo
(Department of Anatomy and Anthropology, Saga Medical School)

Northern Kyushu and southernmost Korea face each other across the Tsushima strait, and it is suggested that these two areas had various exchange from ancient times. Previous anthropological studies indicated that modern Japanese have been formed by a hybrid of the Jomon population who were aboriginal Holocene inhabitants of Japan and the immigrant Yayoi population. This study examined interpopulation variations in the craniofacial morphology of human skeletal remains from Japan and South Korea. Three-dimensional geometric morphometric analysis was applied to 43 adult male crania in 4 cranial series from various western Yayoi and eastern Jomon sites in Japan, Yean-ri and Nukdo sites in southernmost Korea. The anatomical landmarks of craniofacial skeleton were digitized using a MicroScribe G2X contact digitizer in order to capture craniofacial shape and size components. Each set of the landmark was superimposed using generalized Procrustes analysis to remove the effects of translation and rotation, and then submitted to a principal component analysis. At first, 27 landmarks of the facial skeleton were used for analysis. The result showed that the principal component score is in general classified into two groups, the Jomon group and the Yayoi, Yean-ri and Nukdo groups. Compared to the Jomon sample, the craniofacial shape of the Yayoi, Yean-ri and Nukdo tends to display distinctly higher upper face, orbit and nasal region. However, only Yean-ri 41 skull was located slightly near the Jomon population. As a further analysis, the morphology of nasal skeleton was analyzed. However, the second analysis revealed that Yean-ri 41 skull doesn't have a prominent nasal skeleton which is one of the characteristics of Jomon people. The narrow and flat nasal bone of Yean-ri 41 is close to Yayoi rather than Jomon. Further investigation is required to clarify the population history of South Korea.

Morphological traits of Mandible and Dentition in human remains from Bronze Age to Iron Age between South Korea and Japan

Hiroko Hashimoto
(Primate Research Institute, Kyoto University)

The prehistoric South Korea and Japan people actively exchanged goods with people lived in other area. In recent years South Korea has a lot of human bones have been excavated. The aims of this study are to determine whether the dental measurements and the non-metrical dental traits can be used for migration analysis, and to determine similarities and dissimilarities in prehistoric South Korea and Japan.

A site being a basic unit for the dental measurements analysis, the statistical features were examined differently for each sex. The T-test was carried out to compare the differences in the diameters of mesio-distal diameter and bucco-lingual among the sites. When no significant difference of variance between two sites was shown, the Student's T test was applied. And when a significant difference of variance was shown, Welch's T Test was applied. For determining intra-site variations, z-scores were calculated based on the average data.

Non-metrical dental traits (NMDT) aimed to evaluate variations in non-metrical dental traits between geologically diversities from South Korea's site and modern, the Neolithic and modern China's site to the a couple of prehistoric and historic Japanese site. Differences in observed frequencies of each NMDT between the sites were tested using the x^2 test and were summarized into a dendrogram based on the standardized mean measure of divergence (MMD) scores. Three sites: Yean-ri, Nukdo, Tanegashima-Yayoi) indicated similar frequencies for the traits, and the standardized MMD scores.

This work was supported by the Takanashi Foundation for Arts and Archaeology.

The nature of the Tomb Site Yean-ri by considering of excavated relics

Cho Seong won
(Woori Research Institute for Cultural Properties)

Yean-ri tombs site from Gimhae, South Korea have been dated to the fourth to seventh century AD. Through the excavations conducted by the Museum of Busan National University between 1976 and 1980, it was discovered that they were the graves of common people of the Gaya Period. The types of graves discovered up to now are very diverse including, wooden burial chambers; it have potteries of Gaya type from fourth century to middle of fifth century, stone coffins and jar coffins; there potteries are seen as a strong influence of Silla from middle of fifth century to middle of sixth century, and finally stone burial chamber; from late sixth century to seventh century. Numerous relics such as earthenware, ironware, and personal ornaments were excavated; fishing tools and agricultural tools and so on. Yean-ri people, they started agricultural life, on the other hand they keeps fishing life higher percentage. Yean-ri tumuli are rom coastal areas, their diet may have retained a significant marine component, in fact Yean-ri

human skeletal remains, a couple of them have exostosis of external auditory canal.

Human Sacrificial Burial in Ancient Korean Society

Kim Su Whan
(Woori Research Institute for Cultural Properties)

Human sacrificial burial (HSB) is one of the burial customs are found in the Gaya and Silla Yeongnam region, South Korea from late third century to early sixth century. It differs from the literature and records showed that performed the large tumulus HSB in the Gaya and Silla by the outcome of the recent archaeological excavations. Origin of human sacrificial burial is inconclusive opinion in South Korea. One is opinion that began on their own. The other is the direct transmission from the northeastern region of China. The beginning of HSB that the concentration of power associated with the establishment of a strict court rank to the foundation or large amounts of tombs and relics congestion is evident in South Korea. HSB was first confirmed in South Korea in ruins Daesung-dong, Gimhae Gumgwan-Gaya at the end of the third century, up to the fourth century will be enforced only in the main Gumgwan-Gaya. In early fifth century, it found in Gyeongju and Gyeongsan Silla. HSB is spreading tumulus of the country respectively, Dae-Gaya, Ara-gaya and Silla. HSB is believed to have disappeared at once or gradually become early the sixth century in each region. We can be obtained from HSB, the relationship between central and local governments, social change and development of ancient South Korea.

The historical background of establishment and declination at NukDo site in South Korea

Chikara Inoue
(Archaeological Institute of Kashihara, Nara Prefecture)

Nukdo site is located in the Sacheon City of Kyungsang-namdo, South Korea. This site was considered to be the trade centre between Kyushu and Nannang because of the Yayoi and Nannang pottery, and Ban-liang coin excavated from this site.
Previous research had focused only on the interactions regarding the historical background of the establishment and declination of this site. However, I would like to discuss it from a political viewpoint such as the formation of community and country in South Korea.

At the time of the establishment during the early Iron Age, the community was built in the southeast area of South Korea and chiefs in possession of bronze artifacts emerged. They obtained bronze articles, including the bronze dagger, from the more advanced southwest area in South Korea. When the chiefs of the southeast area obtained bronze articles from southwest area, Nukdo site was the intermediary in the trade between the chiefs from the southeast area and the southwest area.

The declination of the Nuk-do site was strongly related to the rise of Byeonjin

Guyagok, one of the 12 countries of Byeonhan. The Gimhae area prospered as an international trade harbor from the late 1st century. Byeonjin Guyagok was becoming a central force, controlling small countries and trade centres such as the Nukudo site that trade in the southeast area freely.

The Burial Principle of the Chief's Tumulus in the Kofun Period:The Influence of Paekche —

Akira Seike
(Faculty of Humanities & Economics Kochi University)

In Japan, those who were buried in the same tumulus were siblings all through the Kofun period. But co-burials of a couple are also recorded in written sources. That burial practice was restricted to certain groups of the highest rank and of a foreign origin, and they had the influence of Paekche. But co-burials of a couple were quite uncommon. The Paekche influence was restricted to the highest rank and did not continue for long.

Morning, Friday 8 June, 2012

Friday, 8 June (Morning)
Venue: Graduate School

Title of Session:
Pottery and Neolithisation in East Asia

Organizers:
Leo Aoi HOSOYA (Research Institute for Humanity and Nature), Junzo UCHIYAMA (Research Institute for Humanity and Nature), Peter JORDAN (University of Aberdeen)

Session Abstract
In this session, we discuss how early pottery was being made, used and shared in prehistoric East Asia. The invention of pottery has remained one of the most important problems in Old World Archaeology (Rice 1999). Ceramic containers were long assumed to have emerged in conjunction with a wider set of 'Neolithic' cultural innovations that arose after the domestication of plants and animals, and included the appearance of settled villages, the generation of agricultural surplus and the rise of complex urban civilizations. As general understandings of the wider Eurasian archaeological record have improved, a more complex picture is emerging. The first pottery traditions now appear to have been established among various East Asian hunter-gatherer societies as early as 13,500 cal BC (in China, Japan, and along the Amur), forming a technological innovation entirely independent from agricultural origins (Jordan and Zvelebil 2009a, 2009b). Improved theoretical insights into the potential socio-cultural dynamics of hunter-gatherer societies are therefore crucial to early pottery research. Social settings of technological innovation, economic intensification and social transformation among non-agricultural societies must have provided the primary context of ceramic innovation. Pottery would have provided foragers with attractive new strategies for the storage, preparation and consumption of novel foodstuffs, which in turn would have had important implications for diet, health, demography and community social relations (Hayden 2009; Rice 1999). We thus, in this session, develop discussion on the issue of East Asian early pottery with a holistic view of foodways, trade, preliminary cultivation and landscape, comparing with Western Eurasian examples.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Peter Jordan: Ceramics before Farming: Early Pottery Origins, Innovations and Dispersals in Northern Eurasia
9:30~9:50: Leo Aoi Hosoya: Pottery, Foodways and Social Valuing of Food Plants
Junzo Uchiyama: Rethinking "Neolithic Revolution": A Perspective from the East

Asian Inland Seas

9:50~10:10: Ilona Bausch: Neolithisation and early trading in Jomon Japan: Jômon jadeite pendant and serpentinite adze production sites along the Japan Sea Coast

10:10~10:30: Shuzo Koyama: Jomon as Farmers: Slash-and-Burn Farming during the Jomon Period

10:10~10:30: Tea & Coffee

10:30~10:45: Shinji Ito: Formation Process of the Prehistoric Pottery Culture and Current Problems of the Chronological Studies in the Ryukyu Archipelago

10:45~11:05: Kevin Gibbs: Early Ceramics in Cultural Contexts: Neolithic in Jordan and Jomon Japan

11:05~11:25: Junzo Uchiyama: Rethinking "Neolithic Revolution": A Perspective from the East Asian Inland Seas

11:25~11:35: Comments (Discussant T. B. A.)

11:35~12:30 Discussion

Abstracts

Ceramics before Farming: Early Pottery Origins, Innovations and Dispersals in Northern Eurasia

Peter Jordan
(University of Aberdeen, UK)

The emergence of pottery is one of the most important research questions in World Archaeology. Along with China and the Russian Far East, the Incipient Jomon archaeological record of Japan contains some of the Old World's first pottery, which was first produced by Late Pleistocene foraging populations long before the transition to agriculture. New research suggests that this early knowledge of pottery-making then dispersed from East Asia into hunter-gatherer societies living in other regions of Eurasia, eventually reaching Northwest Europe several millennia later. This apparent pan-Eurasian dispersal event overturns some of the most enduring assumptions in European- and Old World Archaeology, which link pottery exclusively with settled agricultural societies, and the origin and dispersal of ceramics with the Neolithic Revolution's domestication of plants and animals in the Near East. The early pottery traditions of East Asia now have renewed international significance for World Archaeology, and with the rights kind of research questions and analytical approaches, could provide exciting new opportunities for addressing some of the key social, economic and ecological factors that led to the origin and dispersal of the world's oldest ceramic containers.

Pottery, Foodways and Social Valuing of Food Plants

Leo Aoi Hosoya
(Research Institute for Humanity and Nature, Kyoto, Japan)

Eating for human is always cultural activities and all pieces of food are attached certain meanings and value by each human society. The way of cooking is deeply concerned with the valuing. Fuller & Rowlands (2009) categorized traditional food culture of Eastern and Western Eurasia as boiling-centered and grinding-centered. They discussed the cooking characteristics already existed in pre-agriculture periods, and influenced all basic factors concerning food, such as choices of plants to cultivate and concepts of 'high-status' food. Eastern Asian 'boiling' culture is fundamentally related to the existence of pottery. On Japanese Jomon hunter-gatherers' society, it has archaeologically and ethnographically claimed that boiling was commonly used for processing wild nuts to make them edible. In Chinese Neolithic also, recent archaeobotanical research has revealed that a large part of subsistence was occupied by wild nuts even with early rice farmers, and thus the similar significant role of pottery to the Japanese Jomon case through pre- and post-agriculture periods is suggested.

In this paper, I put together how much we can discuss on the relationships between cooking tradition and social valuing of food plants, which should much have influenced the transformation history of subsistence strategy, with existing East Asian Neolithic archaeological and ethnographic data, focusing on the role of pottery. Based on that, I develop discussion on new methodology to explore the Neolithisation studies from the scope of cooking/processing tradition of food plants, including my recently started experimental studies.

Neolithisation and early trading in Jomon Japan: Jômon jadeite pendant and serpentinite adze production sites along the Japan Sea Coast

Ilona Bausch
(Leiden University, Netherlands)

This paper will focus on the very early start of long-distance and interregional interaction in prehistoric East Asia. It will do so from the perspective of the transmission from the continent to the Japan Sea Coast of technological innovations on stone tool productions, as well as the practice of polished stone ornaments. In Japan, such innovations stimulated the local production of serpentinite polished adzes and stone ornaments at sites in the area now known as the Hokuriku 'Jadeite Coast'. The practice of nephrite slit jade earrings probably originated in North-eastern China in the 8th Millennium bp among the farmers of the Xinglongwa culture in Manchuria, where they were used as signifiers of prestige and leader identity. As the nephrite earrings spread over vast distances over time, first the 'originals' themselves were circulated, then the practice and technology of local earring production transmitted to distant communities, and finally local varieties emerged everywhere. In East Asia, the practice did not only spread to 'other' farming cultures within the region of modern China, but also took hold among the hunter-gatherer communities in Siberia, Korea and Japan in the 7th Millennium bp. Arriving in Japan these technological innovations had a profound influence on the local Jômon cultures, who imitated the objects in local

materials. Eventually, from ca. 5500 bp onwards, these technologies also stimulated the production of local jadeite pendants at the 'Jadeite Coast', which were circulated all over Japan, with interesting implications for Jômon social dynamics.

Jomon as Farmers: Slash-and-Burn Farming during the Jomon Period

Shuzo Koyama
(Suita City Museum, Osaka, Japan)

T. B. A.

Formation Process of the Prehistoric Pottery Culture and Current Problems of the Chronological Studies in the Ryukyu Archipelago

Shinji Ito
(Kokugakuin University, Tokyo)

In prehistoric periods, the Ryukyu archipelago can be divided into two sub-regions. One is the northern Ryukyu where had on-and-off but deep influence from Kyushu island which is one of main isldand of Japan. From south to north, Tokara and Amami islands where now belong to Kagoshima prefecture, and Okinawa islands of Okinawa prefecture consist this northern region. Another is the southern Ryukyu region including Miyako islands and Yaeyama islands, southbound where also belong to Okinawa prefecture. The origin of prehistoric culture in the southern region is not well understood.

In this presentation, I will focus on the following three points.

(1) Show the current understanding of prehistoric archaeological chronology and emergence of pottery culture in the Ryukyu archipelago.
(2) Discuss some discrepancy between archaeological pottery chronology and results of radiocarbon dating.
(3) Point out some critical points to combine conventional chronological view and radiocarbon dating.

Early Ceramics in Cultural Contexts: Neolithic in Jordan and Jomon Japan

Kevin Gibbs
(University of Aberdeen, UK)

Recent interest in the study of pottery dispersals, potentially at a pan-Eurasian scale, has emphasized the importance of East Asian hunter-gatherer ceramics. As the earliest known pottery in the world, East Asian ceramic traditions may represent an important starting point for such dispersals. But adopting a very broad, continental-scale

perspective on early pottery also highlights notable regional differences in the development of 'Neolithic' ceramics. In different parts of Eurasia 'Neolithic' means different things, and pottery's role in the Neolithisation process is not the same. The hunter-gather pottery of Japan and the pots of Neolithic farmers in the Near East provide good examples of the divergent trajectories in the development of early ceramics. Looking at these two areas, this paper will highlight differences in the technological, social and economic contexts within which pottery emerged. It will also consider potential regional differences in archaeological approaches to early pottery, including the significance of small numbers of sherds in very early contexts.

Rethinking "Neolithic Revolution": A Perspective from the East Asian Inland Seas

Junzo Uchiyama
(Research Institute for Humanity and Nature, Kyoto, Japan)

As an archaeological term "Neolithisation", which can be defined as the transitional process from a hunting-gathering-based economy to an agriculture-based one, is normally depicted as a package of events including the establishment of a sedentary lifestyle as well as the emergence of domesticated plants and animals, accompanied by several significant technological innovations like pottery. Based on archaeological contexts in the South-west Asia, the notion of a "Neolithic Revolution" has been proposed under the recognition that the appearance of a sedentary lifestyle and agriculture were mutually connected events, which promoted technological innovation within a relatively short period of historical time. However, recent investigations in East Asia have revealed that ceramic technology emerged and disseminated long before sedentism and domestication of natural species, making the Neolithisation process much longer than what the South-west Asia-based scenario predicts. Is the East Asian phenomenon only an exceptional case under particular circumstances? Or, is it requesting the redefinition of Neolithisation? If so, under what contexts, and what kinds of factors could foster the dissemination of the "Neolithic" lifestyle and technology? In this paper, taking the East Asian Inland Seas (the two major seas surrounded by lands in East Asia, i.e. the Japan Sea and the East China Sea) as a main field, the actual process Neolithisation will be assessed comparatively with Western Eurasia from the viewpoint of landscape history. Then the characteristics of Neolithisation in human history will be re-considered, trying to establish a new theoretical model of "Neolithisation".

Friday, 8 June (Morning)
Venue: Museum

Title of Session:
Public Archaeology and historical reflections

Chair:
Clayton D. Brown (Utah State University)

Timetable
9:00~9:10: Session introduction
9:10~9:30: Chieh-fu Jeff Cheng The Historical Archaeological Study of Mountain Trails and Police Stations (Chuzaisyo) in the Japanese Period (1895-1945) of Taiwan
9:30~9:50: Hideo Yoshii Re-examination of archaeological research activities in Colonial Korea—focusing on the investigation of Kumgawan-chong tomb—
9:50~10:10: Clayton D. Brown Preserving China's Past: Sino-American Collaboration in Archaeology and Antiquities Protection, 1912-1934
10:10~10:30: Yining Xue and Chieh-fu Jeff Cheng Media and Public Outreach in Archaeology: a Case Study of the Discovery of Cao Cao's Tomb in China
10:30~10:45 Tea & Coffee
10:45~11:05: Ray Ma The Archaeological Heritage in Hong Kong: Protection under the EIA and HIA Mechanisms
11:05~12:30 Discussion

Abstracts

The Historical Archaeological Study of Mountain Trails and Police Stations (Chuzaisyo) in the Japanese Period (1895-1945) of Taiwan

Chieh-fu Jeff Cheng
(Boston University)

Since the 17th century Taiwan has been colonized by outsiders. During the earlier period of Dutch colonization, immigrants from Mainland China only occupied the coastal areas of Taiwan because access to the mountain areas was treacherous due to occupation by indigenous groups. Though the mountain areas contain important raw material resources, exploitation could only be done through control of the indigenous groups and their territories. Thus beginning in 1899, the Japanese colonial government introduced several methods to gain control of the indigenous groups and the mountain resources. They started to build trails in mountain areas for transportation of those resources, which deliberately crosscut the indigenous communities in order to control the local population. Police stations (*Chuzaisyo*) were also built along these trails with the purpose of monitoring as well as providing trade, health and education facilities for local groups. Even in stations that were 2000 meters above sea level, the Japanese erected electricity and telephone poles for their police stations and trails. Moreover, all of their daily supplies needed to be brought from the lower areas, which required a lot of human manpower. Because of the weather conditions, the life quality at the police stations was difficult. Despite these conditions, many police officers had to bring their wives and children from Japan to stay with them. It was only after the Chinese took over rule in Taiwan did these stations become abandoned and ruined. Previous studies about these stations mainly focus on official documents, which may only provide a

partial story. In this research, I shall emphasize the importance of the examination of both personal documents and the material culture of these sites. Thus by applying such a historical archaeological approach, we will be able to learn about these officers' daily life and their interactions with the local people that were rarely documented in the official records.

Re-examination of archaeological research activities in Colonial Korea—focusing on the investigation of Kumgawan-chong tomb—

Hideo Yoshii
(Graduate School of Letters, Kyoto University)

Japanese archaeologists working for the Colonial Governor-General Office of Chosen (Chosen Sotokufu; 1910-1945) had a virtual monopoly over archaeological surveys, investigations, research excavations, and the registration and preservation of Korean remains and relics. But there are still many questions about how they excavated the remains and investigated relics of Korea at that time.

For interpreting these questions, I will focus on Kumgwan-chong tomb, which is famous for many priceless treasures, including gold crown. At the department of archaeology, Kyoto University, There are many drawings and photographs about the investigation of Kumgwan-chong tomb, some of which are previously unknown photographs of relics taken from 1921 to 1923. After analyzing these documents, I will restore the process of investigation by Hamada Kosaku and Umehara Sueji. In 1921, they rescued kumgwan-chong tomb and its treasures which were accidentally excavated in 1921. They started to study this tomb, but they weren't able to analyze these relics at Kyoto Imperial University, because the Colonial Governor-General Office of Chosen prohibited taking the excavated relics from Colonial Korea. Then they had to investigate the relics at the Museum of the Colonial Governor-General Office of Chosen in Kyongsong(Seowl). But it wasn't enough for making detailed technical drawings and taking photographs. They edited the drawings and photographs about this excavation at their laboratory of Kyoto University. Text 1(1924), plate 1(1921) and plate 2(1927) of the excavation report were published from the printing company of Kyoto, but text part 2 wasn't published whatever the reason.

In accordance with the result of this study, I will discuss that for understanding archaeological research activities in Colonial Korea, we have to analyze the context of archaeological studies throughout the former empire in Japan as well as its colonies.

Preserving China's Past: Sino-American Collaboration in Archaeology and Antiquities Protection, 1912-1934

Clayton D. Brown
(Utah State University)

Following the overthrow of China's last dynasty and the establishment of the Republic

of China in 1912, the US government sponsored a series of expeditions to China to pioneer with the new 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 public exhibitions of the finds, as well as the establishment of China's first national museum and an Antiquities Protection Law. But the rise of Chinese nationalism, later the Cold War, and more recent postcolonialist discourse have all consigned this affair to historical oblivion. This forgotten episode in our shared history a century ago offers a counterpoint to current disputes over cultural property rights and conventional narratives of cultural imperialism that continue to plague Sino-American relations.

Media and Public Outreach in Archaeology: a Case Study of the Discovery of Cao Cao's Tomb in China

Yining Xue and Chieh-fu Jeff Cheng
(Boston University)

Much emphasis has been put on the importance of public outreach in archaeology and heritage management. Archaeologists are no longer considered to be the only stakeholders of archaeological sites. One significant obligation of archaeologists is to introduce their knowledge to the general public. Indeed, it is efficient to achieve this goal by collaborating with mass media. However, the use of media could also result in negative reactions. On December 12th 2009, the Institute of Archaeology in Henan Province held a press conference in Beijing and announced that their ongoing excavation of a tomb in Xigaoxue village proved to be Cao Cao's tomb. Cao Cao (155-220 AD), a significant warlord during the Three Kingdoms period, has been famous among Chinese-speaking people because of the historical novel, *Romance of the Three Kingdoms*. People today may also become familiar with the story through its replicas, such as Chinese operas, TV, movies, video games and in pop culture. The popularity of the story explains why the discovery immediately became breaking news among the general public. However, following the announcement is the suspicion on the credibility of the result by public. By careful examination of this case, we conclude that this is result from the asymmetric expectations between different interest groups, such as the academic and public. Therefore, more than just collaborating with the media, we argue that archaeologists should be equipped with the ability to identify different interest groups and therefore be able to produce the knowledge that fulfills each group's need. Strategies should be designed at the very beginning of the project that will raise public attentions and awareness to avoid any misunderstandings between archaeologists and interest groups.

The Archaeological Heritage in Hong Kong: Protection under the EIA and HIA Mechanisms

Ray Ma
(Antiquities and Monuments Office, Hong Kong)

Apart from the Sung Wong Toi Reservation Ordinance which was implemented in 1899 with focus on the preservation of a single archaeological site, the Antiquities and Monuments Ordinance is the first enactment passed in 1976 to put the entire archaeological heritage of Hong Kong under appropriate legal protection. With the increasing prominence in heritage conservation in Hong Kong, new mechanisms, namely Environmental Impact Assessment (EIA) and Heritage Impact Assessment (HIA), were introduced recently to secure the long term preservation of the archaeological heritage of the city.

The Environmental Impact Assessment Ordinance came into operation in 1998. Cultural heritage is regarded as one of the major elements of the environment under the Ordinance, which requires the designated projects to avoid, minimize and control any adverse impacts on cultural heritage through the environmental impact assessment process. The Chief Executive of the Hong Kong SAR Government in the 2007-08 policy address further announced a new policy statement on heritage conservation, which took the concept one big step forward by the implementation of the Heritage Impact Assessment. Under the new mechanism, the project proponents and relevant works departments of all new capital works projects are required to consider whether their projects will affect heritage sites including sites of archaeological significance. If the answer is in the affirmative, then a Heritage Impact Assessment will be required and mitigation measures must be devised. The paper will give more details of the both mechanisms with examples on their applications.

Friday, 8 June (Morning)
Venue: Community Center

Title of Session:
Reconsidering the Crescent-Shaped Exchange Belt – Methodological, Theoretical and Material Concerns of Long-Distance Interactions in East Asia Thirty Years after Tong Enzheng

Organizers:
Anke Hein (University of California, Los Angeles) &
Jack Davey (University of California, Los Angeles)

Session Abstract
When in the 1980s Tong Enzheng 童恩正 developed his model of a crescent-shaped exchange belt 边地半月形文化传播带 stretching from Northeast China and Korea over the Qinghai area all the way to Yunnan, most researchers were still rather cautious about suggestions of long-distance contact. They instead preferred to concentrate on local developments. Only in recent years has it become acceptable and even desirable again to discuss far-reaching exchange networks. However, for China, the focus is more on steppe connections and western influence, while material from the Northeast and

Southwest are hardly ever mentioned in the same context. Furthermore, Tong Enzheng's considerable theoretical contribution is hardly ever taken notice of. In his article, he also pointed out that cultural unity or 'contact' as blanket terms were not sufficient explanations in and of themselves, but that there were many possible reasons for similarities between archaeological phenomena in different regions. Additionally, he argued that ecological and geographic preconditions had to be taken into consideration to evaluate possibilities of and reasons for exchange.

This session therefore wants to refocus on these two main points Tong Enzheng has raised: First the possible connections along this crescent-shaped corridor, encomassing different kinds of short-distance as well as long-distance interactions as well as their geographic preconditions. Secondly, we will use the opportunity to discuss theoretical and methodological issues like the nature of 'cultures' and 'identity groups' and their reflection in the archaeological record as well as general mechanisms and pre-conditions of inter-group contact. The session thus assembles papers treating material from northern, northwestern and southwestern China that indicate outside connections, as well as theoretically oriented contributions.

Timetable

9:00~9:10: Session introduction

9:10~9:30: Lü Hongliang: Rethinking the Crescent-shaped Exchange Belt

9:30~9:50: Anke Hein: Movements along the Western Part of the Crescent-Shape Exchange-Belt – The Prehistoric Liangshan Region as a Multi- Cultural 'Intersection'

9:50~10:10: Alice Yao: Iron instead of Bronze Age peoples? Implications for group interaction in SW China

10:10~10:30: Chiou-Peng TzeHuey: Spiral Handle and Three-pronged Dagger Guard: Stylistic or Technical Traits?

10:30~10:45 Tea & Coffee

10:45~11:05: Miyamoto Kazuo: The Emergence and Chronology of Bronzes on the Tibetan Plateau of Sichuan Province

11:05~11:25: Li Yongxian: An analysis of the Karuo site: On the origin of early agriculture on the Tibetan Plateau

11:25~11:45: Annie Chan: Footwear as a construct of identity: Tracing the early adaptation of steppe sartorial culture in pre-imperial China

11:45~12:30: Discussion

Discussant: Lothar von Falkenhausen

Abstracts

Rethinking the Crescent-shaped Exchange Belt

Lü Hongliang
(Center for Tibetan Studies, Department of Archaeological, Sichuan University)

When in 1987 Tong Enzheng published his article titled "On the Crescent-shaped Exchange Belt Extending from the Northeast to the Southwest of China", it soon became one of his hallmark publications, which was going to exert tremendous influence throughout the whole scholarly world of Chinese archaeology. Especially the concept of a crescent-shaped exchange belt became wide-spread and remains to be of great importance until today. The present paper will summarize the history of its influence, and reflect on its basic concepts and ideas in light of current archaeological theory and discoveries made during the last three decades. The focus will be on the formation and place of the model of the crescent-shaped exchange belt within the history of Chinese archaeology and its relationship with Clark Wissler(1847-1940), and on reexamination of series cultural elements listed by Tong as the evidences as Crescent-shaped Exchange Belt. This paper will therefore set the framework for the whole session, introducing the scholar and his model that has inspired so many working on the so-called border regions of China as well as on general problems of cultural contact and exchange.

Movements along the Western Part of the Crescent-Shape Exchange-Belt – The Prehistoric Liangshan Region as a Multi- Cultural 'Intersection'

Anke Hein
(Cotsen Institute of Archaeology, University of California, Los Angeles)

Located at the intersection of the Qinghai-Tibet- and the Yunnan-Guizhou-Plateau and bordering on the Sichuan Plain, the Liangshan area is a connection point of several different cultural-geographic regions. It is furthermore criss-crossed by a multitude of rivers opening up contacts out of the towering Hengduanshan mountain range, which channeled the early exchange along the eastern area of Central Asia. Accordingly, the archaeological material from this region shows a wide range of connections with different areas far north, south, and east, intermingled with objects and features exhibiting strong local particularities.
This paper will give an overview of the local archaeological record, focusing on the different signs of outside influence, their origin and chronological position. Furthermore, I will suggest some possible routes and types of contact and exchange, their motivations and geographic preconditions. In this brief contribution, it will not be possible to answer any of these questions conclusively. Instead, the main aim of this paper is to give a rough impression of the material at hand and show its potential as a case study for theoretical and methodical considerations for research on mechanisms of and reasons for cultural contact, exchange, and influence.

Iron instead of Bronze Age peoples? Implications for group interaction in SW China

Alice Yao
(University of Toronto)

The Dian complex has typically been identified as a bronze age using culture. Like their contemporaries in Southeast Asia in the second half of the first millennium BC, the

archaeological record of the Dian and related societies in Yunnan is noted by the intensification of bronze production. However, sampling of sites associated with the Dian culture has revealed iron production possibly as early as the 7th century BC. From where did this technological know-how emanate? This paper discusses the possible sources of regional interaction.

Spiral Handle and Three-pronged Dagger-Guard: Stylistic or Technical Traits?

TzeHuey Chiou-Peng
(Spurlock Museum, University of Illinois Urbana-Champaign)

This paper studies the proliferation of distinct Bronze Age weapon designs used along the western frontier of China around the middle of the 1st millennium BCE. The investigation pertains to a small number of bimetallic daggers discovered in Ningxia, and remarkable quantities of similar items from the highlands along the Sichuan-Yunnan borders. Except for minor stylistic variations and differences in the choice of metals, these artifacts share main morphological features: a three-pronged dagger guard at the base of a hilt that is wrapped in spiral patterns. The inclusion of these visual traits in different archaeological landscapes has generally been perceived as results of stylistic diffusion within a homogenous cultural horizon. However, such interpretations have remained inconclusive due to the lack of stratigraphical evidence. The mechanism for this assumed diffusion, as well as the quantitative and qualitative differences between the objects from these two regions, are also unaccounted for. The author holds that more promising avenues for exploring the underlying factors in the dispersion of these unique design elements in time and space, lie in investigating details of production and use. Available metallurgical data in conjunction with typological analyses suggest that the distribution of bi-metallic swords often hinged on socio-economic, ecological, and geological variables, which dictated the accessibility to different kinds of raw material, the availability of technology for production, and the function of these artifacts. Nevertheless, all of these metal swords appear to have been created on the basis of shared tool-making rudiments originally geared for assembling composite parts, in which perishable materials could have been incorporated. This shared technology was disseminated over a complex exchange network crossing ethic, spatial, and temporal boundaries; it was eventually manifested in the form of distinct weapon designs when metal production became feasible among varied cultural groups, who were nomadic in nature. .

The Emergence and Chronology of Bronzes on the Tibetan Plateau of Sichuan Province

Miyamoto Kazuo
(Faculty of Humanities, Kyushu University)

This paper reports on the results of Sino-Japanese joint excavations conducted on stone cist graves in Sichuan Province between 2008 an 2010, which have succeeded in

resolving the question of the dating and chronology of those stone cist graves containing bronze artifacts. Based on this material, it is furthermore argued that the emergence of bronzes in this area might be connected with bronzes from Northwest China, suggesting that the Model of the Crescent Exchange Belt would need to be modified significantly.

An analysis of the Karuo site: On the origin of early agriculture on the Tibetan Plateau

Li Yongxian
(Center for Tibetan Studies, Department of Archaeological, Sichuan University)

The human colonization of the Tibetan Plateau took place during the late Paleolithic at the latest. The stone tool assemblage of the time shows that these early inhabitants of the Tibetan Plateau lived in small hunter-gatherer groups, whose mode of living had the typical characteristics of middle to late Paleolithic groups in North East Asia. About 10,000 years later, during the late Holocene, human activities on the Tibetan Plateau experienced a second peak, showing the expansion of the millet agriculture of Northern China, and the movement of groups from the Yellow River Valley onto the plateau. This occurred around 6000-5000 BP, i.e. during the Holocene Megathermal on the Tibetan Plateau (8.7-3 ka BP).
The Karuo site dates to 5300-3900 BP, is located at 3225 m asl., and characterized by an agriculture dominated by millet (*Setaria Italica* (L.) P. Beauv). The Changguogou site on the middle reaches of the Yarlung Zangbo River, located at 3400 m asl. and dating to around 3500 BP, revealed barley (*Hordeum Hordeum vulgare* L. *var. nudum*), wheat (*Triticum aestivum* L.) and also millet. Millet is the hallmark of early agricultural groups on the Tibet plateau, and the history of its cultivation there lasted for over 1000 years, before it was substituted by wheat.

Footwear as a construct of identity: Tracing the early adaptation of steppe sartorial culture in pre-imperial China

Annie Chan
(University of Pennsylvania)

Even though the denizens of pre-imperial China had considered the attire of the northern steppe nomads a characteristic display of barbaric mores, they paid equal if not more attention to its utility, as attested in textual records dated to as early as the time of King Ling of the principality of Zhao (355-299 BC). Evidently, it was not for the aesthetic appeal of nomadic attire (胡服 Hufu) but the practicality of its design that they adapted to the style of costume they considered in conflict with the guidelines stipulated by their ancestral rites. As a distinct and important part of nomadic attire, footwear was designed to accommodate the pastoral nomadic lifestyle and warfare, it incorporated elements that enhanced agility and comfortability for traveling on foot and horseback. The introduction of the use of cavalry to the pre-imperial Chinese states in the 5th century BC called for costumes tailored to conditions of combat. Originally

adopted for such utilitarian purposes, elements of Hufu, notably footwear, became increasingly dominant in Chinese sartorial designs and had by the mid-Tang period become part of official court attire and was also widely used in military and civilian clothing. The historical discourse of the adaptation of nomadic attire developed along cultural and political trajectories that engendered the transfer of material culture and associated technologies from the northern steppes to the Central Plain of China; it can be traced using archaeological and textual material, as well as various forms of visual art. Using footwear as an identity construct, the impending presentation reflects on the geographical model of cultural transmission advocated by Tong En Zheng and examines the factors that contributed to modifications in the Chinese institution of clothing taking into consideration relevant geographical and anthropogenic preconditions.

Friday, 8 June (Morning)
Venue: Kyushu U. Nishijin Plaza

Title of Session:
Human population and social organization: Kinship, Stratification, and Gender

Organizer:
Kyoko Funahashi (Kyushu University)

Session Abstract
This session will attempt to examine human population and social organization from various perspectives based on the stratification and social organization. Each paper will cover various subjects from prehistoric to modern period and various areas over East Asia. Wide range aspects of past human population and social organization will be shed light on by these various subjects and interdisciplinary methods.

Timetable
9:00~9:10: Session introduction
9:10~9:25:Takeshi Ishikawa: The complexity of prehistoric society and its historical evaluation
9:25~9:40:Shozo Iwanaga: The process of stratification and formation of class societies in Japan
9:40~9:55:Jun'ichi Takesue: Social Stratification in the Yayoi Period, Japan: as seen from the change of settlement structure
9:55~10:10:Shiori Yonemoto: Reconstruction of ordinary Samurai's life-style from MSMs
10:10~10:25: Yoshiyuki Tanaka: Structural change of the kin groups in the state formation process of Japan
10:25~10:40 Tea & Coffee
10:40~10:55: Jaehyun Kim: The Yeongdonri Tomb and the buried individuals
10:55~11:10:Hunglin Chiu: The Social Organization of Prehistoric Taiwan

11:10~11:25:Hayan Lee: Kinship in Neuk-do Site of Korea
11:25~11:40:Kazuaki Yoshimura: The social system and the kin-organisation in the Kofun period in the southern Kyushu region
11:40~11:55:Funahashi Kyoko: Gender expression from the Jomon to the Yayoi periods in the Japanese archipelago, as seen from the case study of ritual tooth ablation
11:55~12:10:Hirofumi Takamuku: Childbirth and Ritual- Bioarchacological approach to collective burial of women and infant -
12:10~12:25:Kenji Okazaki: Sex difference in the oral disease of the Bunun people in Taiwan

Abstracts

The complexity of prehistoric society and its historical evaluation

Takeshi Ishikawa
(Kyushu University)

During the prehistoric era of archipelago, Jomon period spanned more than ten thousands of years with reliance on hunting-gathering subsistence. In this sense, the study of Jomon social complexity and its dynamics provide unique and extraordinary knowledge for understanding hunting-gathering societies in global perspective. Previously, the Jomon societies have been thought to be fundamentally egalitarian, classless society. Over recent few decades long term dynamics of social complexity from band to tribal have been uncovered. And recently there is a new trend to evaluate the late Jomon society as stratified society.

As seen in these previous discourses of Jomon society, we use several notions of social types with relying upon the social anthropology or ethnology. So it will be preliminary work to examine these notions for the argument of social complexity. With this critical review, it is also necessary to re-examine particular ethnographic resources which have been used to be referred in the context of reconstructing Jomon hunting-gathering society such as northwestern coastal region of Canada.

Based on the above examinations, a few results of the social reconstructions of late Jomon period using mainly cemetery sites are discussed in the context of evaluating its social complexity and historical significance.

The process of stratification and formation of class societies in Japan

Shozo Iwanaga
(The Kyushu University Museum)

Debates still continue as to when a state-level society emerged in Japan among the

adopted for such utilitarian purposes, elements of Hufu, notably footwear, became increasingly dominant in Chinese sartorial designs and had by the mid-Tang period become part of official court attire and was also widely used in military and civilian clothing. The historical discourse of the adaptation of nomadic attire developed along cultural and political trajectories that engendered the transfer of material culture and associated technologies from the northern steppes to the Central Plain of China; it can be traced using archaeological and textual material, as well as various forms of visual art. Using footwear as an identity construct, the impending presentation reflects on the geographical model of cultural transmission advocated by Tong En Zheng and examines the factors that contributed to modifications in the Chinese institution of clothing taking into consideration relevant geographical and anthropogenic preconditions.

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As seen in these previous discourses of Jomon society, we use several notions of social types with relying upon the social anthropology or ethnology. So it will be preliminary work to examine these notions for the argument of social complexity. With this critical review, it is also necessary to re-examine particular ethnographic resources which have been used to be referred in the context of reconstructing Jomon hunting-gathering society such as northwestern coastal region of Canada.

Based on the above examinations, a few results of the social reconstructions of late Jomon period using mainly cemetery sites are discussed in the context of evaluating its social complexity and historical significance.

The process of stratification and formation of class societies in Japan

Shozo Iwanaga
(The Kyushu University Museum)

Debates still continue as to when a state-level society emerged in Japan among the

Japanese archaeologists. Some argue that the Japanese society reached the state-level in the middle Yayoi Period or the second century B.C. while others at the beginning of the eighth century A.D. when the Chinese-style bureaucracy was adopted. Such differences are an outcome of difference in the concept of a state and especially an early state. Such differences in the hypotheses concerning the state-formation have resulted in serious debates as to the position of the Yayoi society and the Kofun society in the context of social evolution in Japan, whether these were at tribal levels or at the level of states. In this paper, I intend to re-examine the concepts of a tribe, ranked society, chiefdom, stratified society, early state and state. I go on to investigate the process of stratification and formation of class societies, and to reexamine a more appropriate division of stages in the evolutional processes of state formation.

Social Stratification in the Yayoi Period, Japan: as seen from the change of settlement structure

Jun'ichi Takesue
(Fukuoka University)

This paper examines the structure of ditch enclosed settlement in the Yayoi Period. The author divides the Yayoi Period into three phases, as seen from the change of the structure of ditch enclosed settlement: 1) Earlier Yayoi 1: c. 7th to 3rd centuries BC, 2) Earlier Yayoi 2: 2nd to 1st centuries BC and 3) Later Yayoi: AD 1st to early 3rd centuries. In the Earlier Yayoi 1, the settlements were basically surrounded by the oval ditch. In the Earlier Yayoi 2, the core settlement was formed in each region. Regional group was also formed in this phase. In the Later Yayoi, the square block for the local chiefs appeared within the oval ditch. Many important facilities were incorporated into this block. We can see the development of the core settlement like this type in Itoshima region. But in this region, some village relating with maritime activities seemed to control the large core settlement.

Reconstruction of ordinary Samurai's life-style from MSMs

Shiori Yonemoto
(Kyushu University)

This study tried to reconstruct life-style of ordinary *Samurai* warriors that belong to upper hierarchy from Musculoskeletal stress markers (hereinafter referred to as MSMs) in Edo period. There is fairly general agreement that in Edo period, the arictocratic cranial traits were formed by differences of lifestyle such as eating habit and heredity promoted marriage with selective deflection. That is, it is a theory about a Japanese microevolution. In like manner, it is pointed out that most of *Samurai* may be different from aristocratic traits and common people. But no studies have ever examined about traits of ordinary *Samurai*, because it was thought that it is difficult to determine burials of *Samurai*. However, in archaeology it was not thought that, i.e. it was thought that

Tokoname Jar and multiple structural burials are status of *Samurai*.

So, this study is intended as an reconstruction of *Samurai*'s life-style based on archaeological view using MSMs, as the sensitive indicators of the muscular activity-induced stresses leaving their marks on the bones. MSMs graded by the severity of morphological changes observed on 29 different parts of both upper and lower limbs were examined. Using the MSMs data, Cluster analysis and Principal component analysis was performed based on the prediction that MSMs of the status of *Samurai* are similar for specificity of their life-style. As results, people who were buried Jar and multiple structural burials are relatively similar. Particularly, the MSMs patterns shows that similarities seen by the eight lower parts. The most likely explanation for similarities is connected to walking habit, swordsmanship, archery, horse-riding and some other habitual practices uniquely conducted by the *Samurai* warrior class.

This study will be linked to better understanding of microevolution.

Structural change of the kin groups in the state formation process of Japan

Yoshiyuki Tanaka
(Graduate School of Social and Cultural Studies, Kyushu University)

The process of Kofun age in Japan was one in which kinship groups were distorted by class stratification, and kinship principles were subdivided according to hierarchical divisions. Even as the secondary and artificial kinship groups known as the *uji* clans were formed, actual communities were dissolved. It was through this process that Japanese society evolved into an ancient state(Iwanaga2006). In the process, the ruled classes were organized into bemin under the chief class at the lower end of the clan hierarchy. Furthermore, they were organized not under the chiefs of the original clans, but in an arbitrary configuration that separated them from the original kinship group(Tanaka2006;2008). In this presentation, I discuss the way of the reorganization of such the ruled classes by the analysis of the human bones excavated from Buzen area, Fukuoka and Oita prefecture.

The Yeongdonri Tomb and the buried individuals

Jaehyun Kim
(Department of Archaeology and Art History, Dong-a University)

This paper reports the outcomes of the Osteo-archaeological investigation of the Yeongdongri tomb of south Korea which I undertook and considers their implications. The four stone chambers yielded: 1 female from the first stone chamber and 1 female from its stone-lined area, 2 female, 2 male and 2 children from the second stone chamber, 3 female and 1 child from the third chamber, and 1 male and 2 female from the fourth chamber. Though they were in a scattered state, due to successive additions of burials, careful excavation and recording, and subsequent laboratory Osteo-archaeological investigations have revealed the sex and age of the deceased and

the order of their burials in the individual chambers. By comparing the information with the outcome of the DNA analysis undertaken by Professor Kwangho Lee, Department of Life Science, Chungang University, the paper will reconstruct kin-relations between the deceased. Their characteristic physical traits will also be commented upon.

The Social Organization of Prehistoric Taiwan

Hunglin Chiu
(The Institute of Anthropology, National Tsing Hua University)

This research will introduce the prehistoric burials in Tainan, Taiwan dates back to 5,000 years ago from the Neolithic Age, the Iron Age and within the most recent 400 years that were distinguished into six different archaeological cultural phases with extremely different mortuary practice. Such time consecutiveness is rarely seen in other parts of Taiwan.

In long term, the main purpose of this research is using both morphological method of dental measurement and elemental chemical analysis of $^{87/86}Sr$ of tooth enamel to interpret the post-marital residence condition and social organization of each phase. By which we can get further understanding of the formation processes of cultural changes, and combine with archaeological contexts to discover the possibilities behind the scene. The author tried using morphological method of dental measurement on 164 individuals of the Iron age Niaosung period, Niaosung Culture(蔦松文化蔦松期 1500B.P. to 1200B.P.) and get reliable and reasonable results. Now I am still working on $^{87/86}Sr$ analysis. In this conference, I will mainly introduce the latest information of so called the "Wu-Shan-Tou period, Da-Hu culture (大湖文化烏山頭期)", an estimate of its duration is 2800B.P. to 2000B.P. which is one stage earlier than the Niaosung Culture. By the comparison of these two different archaeological cultures that have extremely different mortuary practices, I suppose they would have distinguished divergences on both morphological and $^{87/86}Sr$ analysis that can be interpret as each culture has its particular social organization.

Kinship in Neuk-do Site of Korea

Hayan Lee
(Kyushu University)

This study analyses kinship in Neuk-do site that is the typical site of Three Hans period in Korean peninsula. Neuk-do is small island in the southern coast of Korean peninsula, but It is very important site to confirm exchange between Three kingdoms (korea, japan, china) at Three Hans period. In particular, a indicator of the site is triangle urgue pottery. Central formation time corresponds to Sugu-2type of Yayoi period in Japan, but it seems that investigation areas have a little different formation time. The site has identified to separate out residential area and cemetery area, and can confirm to prehistoric kinship of Korean peninsula because it was excavated human remains at Three Hans period.

This study analyzes formation process of cemetery using human remains and archaeological information and estimates kinship by Q-mode correlation coefficients based on human tooth measurements. In case of Ic area among Investigation area, it is earlier formation than other area, and isn't paternal and maternal line but ambilocal, namely based on kinship. This result is similar to analysis result of Yeanri-tombs site of Three kingdoms period, so It can identify what kinship of southern coast of Korean peninsula is similar from Three Hans period to Three Kingdoms period.

The social system and the kin-organisation in the Kofun period in the southern Kyushu region

Kazuaki Yoshimura
(Archaeological Institute of Kashihara, Nara Prefecture)

This paper attempts to reconstruct the social system and kin-organisation of the Kofun (mounded tomb) period (c. 4th to 6th century AD) in the inland area of present-day Miyazaki prefecture, the southern Kyushu region, by examining the formation process of a cemetery comprised of subterranean rock-cut tombs, that confine their distribution to the region. This distinct tomb type has been studied as a unique mortuary custom characterising the southern periphery of the Kofun cultural horizon. However, the cemeteries comprised of them have not fully been examined in terms of their formation process, the mortuary practices and the kin-oraganisation reflected by them. The analyses of the formation process of the Tachigiri and the Asahidai cemetery have revealed that they did not develop distinct sequential clusters, as the packed tumuli clusters of the Late Kofun period characteristically did. The analyses of the skeletal remains from individual tombs and weapons deposited with them have revealed that they were brothers and/or sisters in most of the cases, suggesting that the kin-organisation was based upon a bilinear principle. Comparison with the situation of other cemeteries from the region suggests that kin-organisation of the communities of the inland area of the region at least was based upon a bilinear principle and might have continued to be so well into 6th century, when, elsewhere, it shifted to that based upon a male-line linear descent principle.

Gender expression from the Jomon to the Yayoi periods in the Japanese archipelago, as seen from the case study of ritual tooth ablation

Kyoko Funahashi
(Kyushu University)

Based on the study of ritual tooth ablation, I illustrate one of the potential of gender perspective for reconstructing past societies. At the same time, it is obvious that the spatial variations and temporal changes in ritual tooth ablation have to be contextualized in each social and cultural system for interpreting what is signified in it. The spatiotemporal variability seen in gender expression as seen in the case study of tooth

ablation reflects (1) the relativity of social significance of the gender category in each social context and (2) the gender category as one of constituents within social system as a whole. Therefore—as many archaeologists have already pointed out by using the gender category—in this study, it is recognized that gender is one of the most important social divisions contributing to reconstruct prehistoric society; further, the social role of the gender category is not stable.

Childbirth and Ritual- Bioarchaeological approach to collective burial of women and infant -

Hirofumi Takamuku
(Kyushu University)

Women's pregnancy and childbirth are one of the important events in their life, while some obstetrical risks involved with them are main cause of mature women's death in the pre-industrial societies. Therefore, most societies have some customary and ceremonial rules or actions related with women's reproduction. However, it is difficult to reconstruct those rules and actions in past societies because the archaeological evidence which contains information of women's reproduction is very few.

The aim of this presentation is to approach the actual condition and the concept of women's reproduction in past human populations through analyzing burial customs and the human skeletal remains. There are some cases that fetus was buried with adult women in a single grave. In these collective burial cases, many previous studies assumed that they died of any obstetrical troubles. But it is hard to specify whether the cause of death is any obstetrical troubles or not. Some data of the human skeletal remains are effective to solve this problem. In addition to basic skeletal data such as sex and age, morphological data of the female's bony birth canal are used in this study. Considering that CPD (Cephalo-Pelvic-Disproportion: discord between the maternal bony birth canal size and the fetal head size) is one of the main factor in some obstetrical troubles, it is possible to assume a causal relationship between CPD and the cause of death by measuring the bony birth canal. Moreover, by integrating results from human skeletal remains and archaeological data such as excavated state of human skeletal remains and burial style, this study approaches the problem mentioned above.

Sex difference in the oral disease of the Bunun people in Taiwan

Okazaki Kenji
(Department of Anatomy and Cell Biology, National Taiwan University)

Not only biological factors derived from female life history connected with reproductive ecology but also cultural factors related to the sexual division of labor(SDL) are supposed to contribute to the sex difference of dental caries prevalence(SDC) in the past society. The previous study of the author demonstrated the variation of SDC among prehistorical/historical millet agricultural groups in the northern China. Although some

SDL could be nominated as a factor contributing for this variation of SDC, the relationship between SDC and SDL has not yet fully understood. The caries prevalence of the population that has the certain record of their SDL should be investigated. This study examines the oral disease of the Bunun skeletal remains 2 because their SDL was concretely recorded by cultural anthropologists during the Japanese colonial period. The Bunun people are one of the Taiwanese aborigines, who engage in slash-and-burn farming focused on millet and hunting-gathering in the mountainous region of the central Taiwan. They are well-known for their rigorous social rule. For example, the roles of hunting/ceremony and marriage partners are strictly selected according to the paternal lineage principal. The members for hunting are consisted of only males, while females are charged with gathering and preparing foods and millet wine. The result of this study shows relatively large sex difference of caries (males 12.0%, females 17.6%) and alveolar resorption prevalence (12.2%, 22.0%, respectively). Moderate sex difference was found in calculus prevalence(90.5%, 77.8%, respectively). Little sex difference was found in antemortem tooth loss (11.3%, 11.2%, respectively), periapical abscess (1.1%, 0.9%, respectively) and toot ablation prevalence (62.5%, 68.8%). The discussion will be carefully done about the possibility if their SDL is influencing these results.

Morning, Saturday 9 June, 2012

Saturday, 9 June (Morning)
Venue: Graduate School

Title of Session:
Contacts, Trades and Acculturations

Chair:
Barbara Seyock (Asia Orient Institute, University of Tuebingen, Germany)

Timetable
9:00~9:10: Session introduction
9:10~9:30: Miki Okadera Okinoshima Islands and Related Sites in Munakata Region
9:30~9:50: Kuang-jen Chang East in the West: a preliminary survey of Oriental ceramics found in post-medieval London sites
9:50~10:10: Barbara Seyock On the archaeology of Korean pottery workmanship in former Hizen Province (Japan)
10:10~10:30: Michelle Damian The Maritime Cultural Landscape of Medieval Japan's Seto Inland Sea
10:30~10:45 Tea & Coffee
10:45~12:30: Discussion

Abstracts

Okinoshima Islands and Related Sites in Munakata Region

Miki Okadera
(Fukuoka Prefectural Government World Heritage Registration Promotion Division)

Okinoshima Island and Related Sites in Munakata Region was inscribed on the World Heritage Tentative List of UNESCO in January of 2009. Seizing upon this opportunity, Fukuoka Prefecture, Munakata City and Fukutsu City collaborated to establish the World Heritage Promotion Committee of "Okinoshima Island and Related Sites in Munakata Region".

Okinoshima Island gives us a picture of the religious beliefs of the ancient Japanese people. Over the period from the mid-4th century to the late-9th century, the ancient divine rituals which were performed on Okinoshima Island shifted from Rituals atop Rocks to Rituals in Open Air. Over 80,000 artifacts tribute to the goddess—including a gold ring which made in Korean Peninsula, gilt-bronze dragon heads made in China Continent and such international artifacts have been excavated. This site also considered on playing important role in interexchange in East Asia. And this property also includes

Tuyazaki Tumulus Complex in Fukutsu City.This site considered Munakata Clan tumuli from the mid-5th century to the mid-7th century.

At present, our most concern is what Outstanding Universal Value of this property is which needs inscription the WH List. We have discussed about the issue through domestic and international Expert Meeting. And we also have done several contract research of this property on Archaeology, History and Folklore.

This paper is aimed to re-consider Okinoshima Island and Related Sites in Munakata Region as Ritual Sites and also interexchange Site in East Asia through introducing theses activities.

East in the West: a preliminary survey of Oriental ceramics found in post-medieval London sites

Kuang-jen Chang
(Institute of Archaeology, University College London, UK)

As a global city, London's unstoppable grown over the past five hundred years is well known. However, much of the details of its growth remains to be understood archaeologically, especially the changing relationship between the expanding city centre and the surrounding towns and countryside, as well as its international links, including trade with East Asia. Oriental ceramics have been unearthed at many London sites from the second half of the 16th century onwards, but there has not yet been a systematic examination to investigate their archaeological potential. This paper will survey the published information to reveal a preliminary picture of the distribution of Oriental ceramics in archaeological sites across London boroughs over the last centuries; and discuss how such knowledge can help us to understand the consumption behaviour of oriental ceramics and the development of post-medieval London, which in return could improve our knowledge of ceramic production in East Asia as well.

On the archaeology of Korean pottery workmanship in former Hizen Province (Japan)

Barbara Seyock
(Asia Orient Institute, University of Tuebingen, Germany)

The technology of firing fine stoneware and porcelain reached Japan comparatively late, but once kaolin had been discovered on Japanese territory in the early 17th century porcelain kilns mushroomed around Arita Town in Kyūshū, characterizing the area as the cradle of porcelain manufacturing in Japan. The success of Arita porcelain in Japan and elsewhere is unthinkable without the contributions of Korean potters, as has been generally recognized. But still, a lot of questions remain regarding the intentions and mechanisms underlying these developments. With reference to archaeological finds, Korean potters must have been living and working in the area already for at least half a century before blue-and-white porcelain production started, a scenario that puts a new complexion on the implementation of Korean pottery workmanship among Japanese

firing traditions. In this context, the analyses of Karatsu ware typification and distribution add much to identifying the influence of Korean pottery tradition on major shifts in international ceramic trade and the changing structures of local kilns in Japan.

The Maritime Cultural Landscape of Medieval Japan's Seto Inland Sea

Michelle Damian
(University of Southern California, History Department)

This paper will discuss ongoing research into the composition of Japan's medieval (13th – 16th centuries) maritime cultural landscape of the Seto Inland Sea. Repositioning the sea at the heart of the historical narrative not only emphasizes new economic connections, but also reveals the prominence of the sea in daily life. Combining archaeological and written records concerning trade goods, salt production, fishing, maritime-related rituals, and piracy provides a clearer understanding of the networks and developments in this region. Although the foundation for much of this research comes from the documentary record, incorporating that information with the archaeological evidence into a GIS (Geographic Information Systems) database paints a more complete picture of the challenges that faced the maritime peoples of the Inland Sea.

Saturday, 9 June (Morning)
Venue: Museum

Title of Session:
Comparative Studies of Skeuomorphs and Prestige Items in Early Metal Using Societies of Northeast Asia

Organizers:
SHŌDA Shin'ya (Nara National Research Institute for Cultural Properties) &
Martin T. Bale (Early Korea Project, Harvard University)

Session Abstract
This session aims at revealing both similarities and differences of the characters of metal adoptions among various areas in Northeast Asia, including Northeast China, the Russian Far East, the Korean Peninsula, and the Japanese Islands, especially focusing on skeuomorphs, that is, meaningful imitation of metal with their putative prototypes, and other prestige items such as stone daggers and spearheads. In the 1950s, Russian and Japanese archaeologists began to study elaborately and finely-made polished groundstone daggers to investigate the social changes in local societies under the influence of the more developed cultures of China, Central Asia, and Siberia. They considered the groundstone daggers to be imitations of bronze weapons in the more

developed areas. By regarding these materials as the indication for the existence of bronzes in the same region, they used skeuomorphs to denote the beginning of new techno-chronological eras, such as the "Bronze Age", or explain the chronology of peripheral areas in Northeast Asia. Nevertheless, accumulated new materials found in recent excavations show that the analogy, which gave assurance for the simultaneity between the bronzes in the central areas and stone tools in the peripheral areas, seemingly needs to be reconsidered or denied. This is particularly interesting as these highly exquisite examples of craft production tend to be considered as the results of the imitation of bronzes, symbolizing a more developed technique and culture threatening the peripheral local societies. Yet, differences in morphology between stone and bronze daggers tells us that they were not simple imitations, but possibly represented a unique technological creativity that indicate the identities of local societies. Through these discussions, comparisons of technological change and innovation on a wider scale can help to broaden our perspectives and enhance our interpretations, in particular with regard to the nature of bronze adoption in different places and periods. Thus the comparative studies in northwest Europe will be also introduced here.

Timetable

9:00~9:10: Session introduction – SHODA, Shinya

9:10~9:30: Oksana V. YANSHINA: Weapon-shaped stone tools from Russian Far East: blades with midrib

9:30~9:50: SON, Joonho: Skeuomorphism in Bronze Age of the Korean Peninsula : the case of groundstone

9:50~10:10: Martin T. Bale: Groundstone Dagger Production and Their Use as Symbolic Prestige Goods in the Southern Korean Peninsula and Northern Kyushu

10:10~10:30: Catherine J. Frieman: The sincerest form of flattery? Flint daggers, metal daggers and the 'dagger idea' in 4th-2nd millennium BC Europe

10:30~10:45: Tea & Coffee

10:45~11:05: SHODA Shin'ya: Metal adoption and the Emergence of Stone weapons in Northeast Asia

11:05~11:10: Short Break

11:10~12:00: Discussion

Abstracts

Weapon-shaped stone tools from Russian Far East: blades with midrib

Oksana V. YANSHINA
(Russian Academy of Science)

The purpose of this paper is to survey the current data about one of the most interesting archaeological finds from the Russian Far East – stone spearheads or daggers with midrib which are supposed to be copies of bronze weapon. Many researchers believe that such stone blades simulate the Karasuk, Tagar and even Seima patterns of bronze

weapon from South Siberia. Yet there are some reasons to consider that this opinion is not well proven. In this paper I try to analyse their morphology, chronology, function, distribution and cultural context. Based on this analysis I am inclined to the opinion that such finds shouldn not be directly associated with Siberian historical events. It seems that weapon-shaped stone tools production within sea of Japan area had its own individual history and was not only shadow of the Siberian theatre.

Skeuomorphism in Bronze Age of the Korean Peninsula: the case of groundstone

Joonho SON
(Korean Institute for Archaeology and Environment)

I observe that among the earliest excavated hilted groundstone daggers in the Korean Peninsula are characteristic of Liaoning-style bronze daggers. The gentle curve of the blade, the lens shape of the profile, the step shape of the pommel, the area of connection between steps on the handle, and the so-called 'blood grooves' are imitative of the inserted handle of Liaoning-style bronze daggers. Despite the differences in material between stone tools and bronzes, the similarities in form are clear and the influential relationship between the two is clear. Additionally, when one looks at the commonality of the date of appearance of both in the Misong-ri Pottery Stage, and in the same period the influence of the production of two-stepped bronze point on the two-stepped stone point, it is not difficult to infer the direct relationship of influence between the bronze dagger and groundstone dagger. Furthermore, the period of the emergence of groundstone daggers with the most complex forms and the change toward increasingly simple forms diachronically also reflects the presence of imitation. However, the likeness between the object of imitation and imitated object of the groundstone daggers as imitated bronze daggers is relatively low. It is possible to name characteristics of an imitated bronze dagger excavated in the Korean Peninsula, but this is in contrast with the imitation of the groundstone daggers imitated as they were from bronze daggers of the nearby Russian Maritime Provinces and Japanese Archipelago. When one considers the causes of these characteristics, we cannot explain the simple technological differences. The first possibility is that, given that emulation of material is not the only chief property of the bronze dagger, but there is the form that can be clearly divided, and so one can hypothesize that there is a difference in the rank of bronze and groundstone daggers. Second, the practicality or utility of handled groundstone daggers is high compared to other regions, and the result of such an application is that independent types of daggers were developed in the Korean Peninsula.

Groundstone Dagger Production and Their Use as Symbolic Prestige Goods in the Southern Korean Peninsula and Northern Kyushu

Martin T. Bale
(Early Korea Project, Harvard University)

In this paper I examine long-term processual and contextual elements of material culture to understand changes in the transformation of political and ceremonial landscapes from transegalitarian to incipiently socio-politically complex societies in the southern Korean Peninsula and northern Kyushu. The production and distribution of polished groundstone daggers and other prestige artefacts occurred as part of a nascent political economy in regions of southern Korea in the Mumun Period, c. 1500-300 BC, and in Kyushu in the Early Yayoi, c. 800/700-300 BC. I use several interconnected theoretical models to explore the interplay of exchange, culture change, and the materialisation of ideology in the construction of meaning of groundstone daggers. The objects were a key part of the mortuary complex for a millennium, and I argue that their meaning changed diachronically according to changes in local and regional social scale. In particular, aggrandising elite actors altered their meaning in the name of the accumulation of social capital and used the production and distribution of the artefacts to build political power by attracting and maintaining supporters between 850 and 550 BC.

The sincerest form of flattery? Flint daggers, metal daggers and the 'dagger idea' in 4th-2nd millennium BC Europe

Catherine Julia Frieman
(Australian National University)

Skeuomorphism is a phenomenon closely linked to periods of transition. Since the 19th century (and earlier!) archaeologists and antiquarians have looked to transitional object types, 'missing links' and technological evolution to explain the chronology of innovation. In this worldview, ancient technologies appear and are inevitably adopted because of functional and social advantages of the newer material while older technologies become simply the residue of out-dated practices or aspirational imitations of the next big thing.

In this paper, I will discuss the ways this concept of skeuomorphism has been applied to flint daggers in central and western Europe to support the dominant narrative of metal adoption as inevitable, forward-moving progress. Different types of flint daggers circulated in various parts of Europe from early 4th to the mid 2nd millennia BC. They are frequently contemporary with the earliest metallurgy and/or metal-use in their regions of manufacture and are almost universally described as conscious imitations of metal dagger blades. Their presence alongside copper and bone/antler daggers has led archaeologists to discuss an emergent 'dagger idea' linked to changing social structures and ideas of status tied to the value of metal. However, I will argue that the various dagger types in circulation at this time are linked to broader ideas of innovation and affiliation with growing long-distance exchange networks. The 'dagger idea', replicated in multiple materials and serving different local purposes, was tied not to a single technology, but to changes in the wider technological system which allowed innovations such as metallurgy to be adopted.

Metal adoption and the Emergence of Stone weapons in Northeast Asia

Shin'ya SHŌDA
(Nara National Research Institute for Cultural Properties)

This paper discusses the characteristics of production of the elaborately polished stone weapons from Northeast Asia and dated to the time of metal adoption. They are characterised as the social response to a more developed technique and culture in the Chinese central plain which was possibly threatening these peripheral local societies. Metal objects spread into Northeast Asia, including northeast China, the Russian Maritime Provinces, the Korean peninsula, and the Japanese islands in the second to the first millennium BC; and it is well known that almost simultaneously stone daggers and spearheads began to appear as prestige items. Starting in the 1950s, Russian and Japanese archaeologists considered these daggers to be imitations of bronze weapons in these areas. By regarding them as indications for the existence of bronzes nearby, they used them to denote the beginning of new archaeological eras, such as the "Bronze Age", or explain the chronology of peripheral areas in Northeast Asia. However, differences in morphology between stone and bronze daggers tell us that they were not simple imitations, but possibly represented a unique technological creativity which could indicate the identities of local societies. Moreover, according to a new corpus by the author and colleagues, the shape of stone weapons differs from area to area, that is, in some areas dagger shapes were produced while in others spearhead shapes were preferred. Also, in some areas almost exact copies of the bronze prototypes were produced while in others the shapes were absolutely different. This is not only because of the differences of the strategies developed in both regions which are grounded in local, cultural values, beliefs and technologies to cope with cultural influence from outside, but also the different historical background based on different natural resources and subsistence between these areas.

Saturday, 9 June (Morning)
Venue: Community Centre

Title of Session:
Human Subsistence 'within' Nature: Emergence and Diversity of Tools in Prehistoric East Asia

Organizer:
Keisuke Makibayashi (Ehime University) & Ayako Shibutani (Hiroshima University Museum)

Session Abstract
This session aims to investigate the multifaceted relationships between tools and human subsistence in prehistoric East Asia. Archaeological artifacts are usually examined just only in terms of their own properties for reconstructing the past human subsistence.

However, we need to consider that human has lived as a part of nature. Human and nature are not separate, but people live 'within' nature. All environmental factors are not stable but fluctuating, as we can see in historical records of climatic and topographic changes. People have thus produced diverse subsistence activities, strategies, and systems for adapting to the fluctuating environment. While, human subsistence depends on development of tools and technologies to obtain food resources. Based on these perspectives, in this session, we present recent research results concerning how prehistoric East Asian people developed and used various types of tools, with a holistic view of diverse archaeological information such as botanical remains, ancient starch and artifact styles, to reconstruct human subsistence activities, strategies, and systems. At the same time, we would also like to raise prospects for potentialities of interdisciplinary methodologies for reconstructing past human subsistence strategies through the scope of tools and food resources, especially the use of plant food resources in East Asia.

Timetable

9:00~9:15: Session introduction

9:15~9:30: **Tamiko Hidai** Quern-like Stones Found from Eastern Japan in the Upper Palaeolithic Period

9:30~9:45: Tomoe Sangawa & Takeshi Kuwahata Use-wear analysis: Method of scraper manufacture and use in the Initial Jomon in Kagoshima Prefecture (Kyushu, Japan)

9:45~10:00: Atsushi Uemine Emergence of Social Network: Lithic Raw Material Procurement, Transportation and Consumption Strategy of Jomon-Yayoi Transition Period

10:00~10:15: Ayako Shibutani Plant Food for Early Hunter-gatherers: Starch Residues Found from Grinding Stones at the Nishitaragasako and Mizusako Sites, Kagoshima, Japan

10:15~10:30: Shigeo Iida & Masao Ambiru Possibility of utilization of plant foods in the Paleolithic Japan

10:30~10:45: Katsunori Tanaka & Nobuhiko Kamijo The transition of agricultural crops in East Asia based on morphological and DNA analysis

10:45~11:00 Tea & Coffee

11:00~11:15: Shinji Seguchi Two Equipment for Innovating Habitation by the Jomon Population: Dugout Canoes and Storage Pits

11:15~11:30: Keisuke Makibayashi Beyond Agricultural 'Typology': Formation and transformation of cultivation systems in Prehistoric Mainland China

11:30~11:45: Leo Aoi Hosoya Reconstructing Routine: Methodology and problems in comprehending archaeobotanical and artefactual information

11:45~12:25: Comment & Discussion

Comment: Hitomi Hongo (The Graduate University for Advanced Studies)

Abstracts

Quern-like Stones Found from Eastern Japan in the Upper Palaeolithic Period

Tamiko Hidai
(Tokyo Metropolitan Archaeological Center)

Approximately 20,000 BP the quern-like stones found were unearthed from the Tobitakyu-kita site, one of the sites in the Nogawa basin in the Musashino Terrace Starch residues were recovered from these tools, which gave us important clues to re-analyze their functions during the latter part of the Upper Paleolithic period in East Japan.

Use-wear analysis: Method of scraper manufacture and use in the Initial Jomon in Kagoshima Prefecture (Kyushu, Japan)

Tomoe Sangawa
(Kagoshima University Research center for Archaeology) &
Takeshi Kuwahata
(Kagoshima Prefectural Archaeological Center)

This paper reports the results of use–wear analysis of andesite scrapers excavated from Initial Jomon sites in Kagoshima Prefecture. The results showed that the use-wear found on the scrapers could be classified into several types such as polish and scratches. In some cases it was possible to infer the method of use and the type of materials worked; scratches were indicative of contact with a hard material such as a rock, while the deep polish distribution away from the cutting edge indicated use on herbaceous plants such as rice and asian flatsedge. The observations suggest that the scrapers in similar morphology, made of the same raw material, had diverse functions, although further studies are necessary to specify the nature of the works. In addition, there is a possibility that some scrapers were heat-treated in the manufacturing process, because diagnostic traces of heat exposure were frequently identified.

Emergence of Social Network: Lithic Raw Material Procurement, Transportation and Consumption Strategy of Jomon-Yayoi Transition Period

Atsushi Uemine
(Doshisha University)

This study aims to clarify the intersite relationship during the final Jomon to early Yayoi periods. For this purpose, I investigate lithic assemblages from the plain of the south coast of Kawachi Lake in west central Japan.

First, I focus on artifacts' cortex. The cortex of sanukite, the primary stone tool material in this area, indicates each ancient group's lithic procurement zone. The cortex

examination reveals two findings. One is the change in raw material procurement strategy: gathering raw materials from the riverbed during the first half of the final Jomon period and thereafter from the center of the mountains that are sanukite's source. The second is the similarity in cortex variation between neighboring sites, suggesting that both sites either obtained the raw material from the same zone or shared it.

Next, I focus on the variation in lithic assemblages. Their construction was similar during the first half of the final Jomon period. However, after the second half of that period, some assemblages consist of all four manufacturing stages' debitage, while others consist of only the last two stages' debitage. In addition, many flakes excavated from deposits in some sites exhibit polishes, traces of having been transported together between both types of sites. Those data suggest an intersite connection.

The analysis thus implies the emergence of a social network wherein groups were connected with neighboring sites and obtained distant resources through cooperation with the other site. Such behavior could have formed the core settlement and fixed their territory, which finally led to large-scale paddy field management after the middle Yayoi period.

Plant Food for Early Hunter-gatherers: Starch Residues Found from Grinding Stones at the Nishitaragasako and Mizusako Sites, Kagoshima, Japan

Ayako Shibutani
(Hiroshima University Museum)

Human interaction with plant resources in the Palaeolithic and Jomon periods, Japan, has been clarified during the last decade. The people in those periods did use various plant food resources around settlements. Starch residue analysis, which is a relatively new method in Japanese archaeology, can provide the significant evidence for plant food resources and processing tools as well as these interactions. This paper employed starch residue analysis on grinding stone tools to recover evidence for plant use in hunting-gathering populations at the Nishitaragasako site (32,000-29,000 cal BP) and Mizusako site (11,400-6,500 yr BP) in Kagoshima, southern Kyushu, Japan. The Nishitaragasako and Mizusako people represented some of the hunter-gatherers in southern Kyushu from the Upper Palaeolithic to the Earliest Jomon. Starch remains recovered from sampled stone tools indicate that these people collected and processed various plants, particularly nuts (*Castanea crenata* and *Juglans ailanthifolia*), acorns (*Quercus*, *Lithocarpus*, or others), and bulbs and tubers (*Cardiocrinum* and *Pteridium aquilinum*). Processing nuts and acorns is consistent with the incidence of oak in the pollen record, but ancient presence of tubers is rarely shown as archaeological visibilities. The results also suggest that the use of grinding stone tools to process wild plant foodstuffs may have played a major role in the subsistence strategy of hunter-gatherers before rice cultivation in Japan.

Possibility of utilization of plant foods in the Paleolithic Japan

Shigeo Iida & Masao Ambiru
(Graduate school of Meiji University)

Considering the subsistence of Palelolithic in Japan, hunting of an animal and a vegetable collection are mainly assumed. However, faunal remains and botanical remains proof do not remain in Palelolithic site in Japan. Then, we check the vegetation used as the background of the vegetable matter resource utilization of the paleolithic in Japan. We discuss what kind of relation to the materials of a stone tool, or employment and vegetation.

The transition of agricultural crops in East Asia based on morphological and DNA analysis

Katsunori Tanaka & Nobuhiko Kamijo
(Hirosaki University)

Crops such as cereal and vegetable was domesticated from wild species and improved by human's demand for production, taste and food process. And, tools for agriculture and food process and device for eating was also developed by them. Therefore, crops and tools were co-related for their development. Morphological and DNA analysis held potential not only to identify species and intra-specific variation, supported to reveal the crops human utilized, and but also to show the transition of genetic diversity across geographical area and/or chronology, suggested domestication pathway and transmission in crops. In this report, we present geographical distribution of genotype in rice at the mainland, Japan, based on morphological and molecular data for ancient remains, and discuss it transmission and human living with other remains excavated in Aomori Prefecture, the northern end of mainland.

Two equipment which caused innovation of habitation: Dugout canoe and storage pit

Shinji Seguchi
(Shiga Prefectural Association for Cultural Heritage)

This paper focuses on dugout canoes and storage pits in the Jomon period. These materials were adapted for seasonal changes of the food resources. In so doing, this paper examines the process based on their introductory states and trends of site locations associated with variant numbers of the Jomon sites in order to approach to the process generalized full-year settlements.

Beyond Agricultural 'Typology': Formation and transformation of cultivation systems in Prehistoric Mainland China

Keisuke Makibayashi
(Ehime University)

In this paper, I will reconsider previous approaches, which were specifically classified in regard to natural environment and species of crops analysis, to the prehistoric agriculture in China. Recent researches agree and accept the fact that there were rice cultivation in Yangtze river area and millet cultivation in Yellow river area as basic agricultural types. In relation to this, the research on farming tools has widely been recognized as a method to indicate the features in type of agriculture. Nevertheless, it is also recognized that societies with different subsistence systems had social interactions among themselves in the prehistoric world of mainland China. In addition to that, I also acknowledge that subsistence system in each area had become the type of agriculture described above after the late Neolithic period. So, I argue that referencing the earlier subsistence systems as rice cultivation or millet cultivation should be reconsidered. Base on this perspective, I will reconsider the formation of cultivation in prehistoric mainland China according to the analysis of the emergence and expansion of farming tools.

Reconstructing Routine: Methodology and problems in comprehending archaeobotanical and artefactual information

Aoi Leo Hosoya
(Kyoto University)

Recent archaeobotanical research has revealed that earliest farmers both in south China and Near East lived on 'broad spectrum economy' (Fuller et al. 2009, Tanno & Wilcox 2006): For a considerably long period, cultivation was just a part of subsistence strategy, and hunting, gathering and fishing kept taking the major part. The fact indicates that there were diverse types of 'early farming culture', as those basic factors such as the degree of dependence on cultivation and scheduling of the various subsistence activities must have been differed up to characteristics of the regional culture and environment. Reconstructing the diversity is significant for comprehending the system of prehistoric economy and the formation process of eventual agriculture-based society.

As a means to reconstruct the diversity of subsistence strategies with early farmers, studying botanical and faunal remains is important to find out which kinds of food stuff were exploited, but the simple identification and counting are not enough. To discuss the regional characteristics, we need to reconstruct routinised subsistence activities, *i.e.* how people organized processing plants/animals, which subsistence resource was intensely processed, and so on. Last several decades archaeobotanists have developed methodology for reconstructing such routine, namely the sequence of plant food processing, working spaces of each stage of the processing and organization of the activities (e.g. Hillman 1984, Thompson 1997). Recently in artifact study also, such reconstruction of routine was attempted in Neolithic Chinese cases (Makibayashi 2008).

It is now required to effectively synthesize those botanical and artefactual methods to draw more comprehensive pictures of prehistoric routinised subsistence activities. For that, we need to clarify difference in nature of archaeological information shown by botanical remains and artefacts, and produce new methodology to cover it for synthesizing the information and the interpretation. In this paper I discuss the issue and show potential new cross-disciplinary methodology using case studies of Neolithic Yangtze, China and Yayoi Japan.

Saturday, 9 June (Morning)
Venue: Kyushu U. Nishijin Plaza

Title of Session:
Multiple dimensions of archaeological research in Taiwan

Organizer:
Pochan Chen (Department of Anthropology, National Taiwan University)

Session Abstract
In recent decade, archaeology in Taiwan has encountered multiple challenges from different perspectives. In one way, new concepts of archaeology extend archaeological research from the prehistoric period into historical period and archaeologists have to face different issues, such as multiple colonizations and the status of Taiwan in the world-wide trades under the new world-system since 17th Century. In the other way, the introductions of new scientific research approaches bring some evidence which were ignored before became important proof to challenge traditional perspectives. Furthermore, some scholars even expand their research areas outside of Taiwan and bring back new comparative viewpoints. In this panel, young graduate students in Taiwan will demonstrate these new trends in Taiwan archaeology, including paleobotanical research on Neolithic Peinan and Iron Age Niaosung Culture, GIS analyses of possible site catchment of Neolithic Kenting Culture, comparative research of Neolithic cultures between Taiwan and Ryukyu, the concepts of imported ornaments and ceramics by Iron Age Ki-Wu-Lan people, consumer behavior research of government employees during Japanese ruling period, and the reconstruction of social patterns from the Neolithic Yangshan Cemetery in northwestern China. These research undoubtedly reflect the new trends of Taiwan archaeology.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Kang Yun-Ning: Exploring rice phytoliths in the Peinan Site during the Neolithic Period, Eastern Taiwan
9:30~9:50: Peng Jia-Hong: The research of plant remains at the Iron Age Shiqiao Site, Niao-sung Culture of Taiwan
9:50~10:10: Liu Ting-Yu: The Landscape Room of Neolithic Sites in Southern Tip of

Taiwan: Rethinking Site Catchment Analysis in GIS
10:10~10:30: Lu Jou-Chun: The Neolithic Cultures in Southern Ryukyu and Eastern Coastal of Taiwan: Difference and Correlation
10:30~10:45 Tea & Coffee
10:45~11:05: Wang Li-Ying: The comparative analyses between imported ornaments and ceramics from the Ki-Wu-Lan Site, I-lan County, northeastern Taiwan
11:05~11:25: Liu Jiunyu: A preliminary research of consumer behaviors of the Railway Administration employees of the Governor- General Office in Japanese colonial period in Taiwan
11:25~11:45: Chou Men-jhen: Reexamining the spatial structure of the Yangshan Cemetery Qinghai Province, China
11:45~12:30: Discussion

Abstracts

Exploring rice phytoliths in the Peinan Site during the Neolithic Period, Eastern Taiwan

Kang Yun-Ning
(Department of Anthropology, National Taiwan University)

The Peinan Site is the representative site in the Neolithic Age in eastern Taiwan. There are numerous jade artifacts, slate coffin burials, and settlement structures which were been excavated, and it has also been considered to belong to the early Austronesia Culture. Unfortunately, due to unstable preservation conditions, scholars seldom discover plant remains in the prehistoric contexts in eastern Taiwan. For this reason, researchers can only depend on analogies of possible agriculture tools in modern Taiwan Austronesian tribes to hypothesize their subsistence systems. They propose that stone knives are associated with harvest of millets, and stone sickles are linked to harvest of upland rice. Due to the existence of these two types of stone tools in the Peinan Site, millets and upland rice are believed as possible cultivated plants in the Peinan Culture. Furthermore, since the life, culture and ceremonial activities of modern Taiwan Austronesian are highly related to millets, it is also hypothesized that millets are major domestic plants in the Peinan Culture.

This research focuses on the phytolith evidence collected from excavated ceramics and soil samples of the diachronic living floors in the Peinan Site. We certainly found the existence of phytoliths of rice, which disappeared after the end of the Peinan Culture. Therefore, I suppose that the people who lived in the Peinan Site in the Neolithic Period might have closer relations to rice utilization. This perspective is different from other arguments in the past, and gives us a chance to reconsider the related archaeological issues in the prehistoric eastern Taiwan.

The research of plant remains at the Iron Age Shiqiao Site, Niao-sung Culture of Taiwan

Peng Jia-Hong
(Shihsanhang Museum of Archaeology)

In recent years, scholars in Taiwan try to develop various issues from plant remains, especially those micro plant remains. This paper is the first preliminary research to reconstruct environment and plant utilizations according to the combined information of phytolith, pollen and carbonated seeds from the Shiqiao site, an Iron Age Niao-sung Culture (1,800 B.P. – 1,300 B.P.) site in southern Taiwan.

The soil in the Shiqiao Site is sandy loam to sandy-clay and pollen is difficult to be preserved. Therefore, our research mainly relies on phytolith analyses and with supplemental evidence of pollen and carbonated seeds. In our analyses, rice (*Oryza sativa*) and Job's tears (*Coix lacryma-jobi*) were for eating and only took spikes back. Fragrant manjack (*Cordia dichotoma forst,f.*) was also used as food. Bamboo were gathered for weapons or hunting equipments. Awn were collected as fuels. Furthermore, bamboo and awn might also be building materials. Millet (*Setaria italica*) is very special since it only can be found in this site of the adjacent area.

The Landscape Room of Neolithic Sites in Southern Tip of Taiwan: Rethinking Site Catchment Analysis in GIS

Liu Ting-Yu
(Department of Anthropology, National Taiwan University)

Through calculation of cost surface, GIS transfers the site catchment analysis from simple geometric circle to irregular range in consideration of different cost of transportation over landscapes. Taking both terrestrial and marine data into consideration, different accessibility of resource within a site catchment can be understood more detail, and archaeologists can create a model of interaction between sites and environment.

O-luan-pi III/IV is a Neolithic cultural phase about 2000 to 3000 B.P. in Southern Taiwan. The sites belong to this cultural phase are located in coastal area, and are seen as contemporary subsistence independence all-year residential settlements according to pottery style, artifact functions, and weather environment.

However, the geometric distance of these sites are not regular, some sites are closer to each other. The activity catchment of those contemporary sites with closer distance may interrupt each other.

According to the location of six sites of O-luan-pi III-IV phase, and through the analysis of cost-surface and viewshed of digital elevation model (DEM) in GIS, I divide the coastal area of O-luan-pi peninsula into four different landscape rooms. Two landscape rooms were separately occupied by each single site, and the other two landscape rooms have two sites within them. It seems that catchments of those sites sharing the same landscape room may overlap with each other, and it is inevitable that the activities of sites will influence each other on land.

However, through the analyses of current and wind data, it appears that those sites sharing the same landscape room have different accessibility to terrestrial and marine environment. These variations may lead those sites maintain their independent site catchments rather than competing resources to each other.

The Neolithic Cultures in Southern Ryukyu and Eastern Coast of Taiwan: Difference and Correlation

Lu Jou-Chun
(Department of Anthropology, National Taiwan University)

The Ryukyu Islands can be culturally divided into North, Middle and South Ryukyu. According to the style of artifacts, the Neolithic cultures in North and Middle Ryukyu had close relationships with the Jomon Culture in Kyushu. On the contrary, the Neolithic culture, Shimotabaru, in South Ryukyu is quit distinctive from the cultures in the north, while some types of artifacts are similar to the ones belong to Neolithic cultures in Southeast Asia, especially partially polished stone adzes and Shimotabaru Pottery.

As adjacent islands in the Festoon Islands of the West Pacific, many scholars had debated on the relationships between these two areas in the prehistoric period. Some scholars tried to seek similarities between artifact types in South Ryukyu and Eastern Taiwan. However, they usually emphasized only on certain types of artifacts, such as aforementioned partially polished stone adzes or Shimotabaru Pottery, and discussed cultural interactions according to these limited similarities.

With increasing excavations in these two areas, more and more artifacts are added into this comparative list. However, arguments were usually influenced by the differences between the classification systems of two academic traditions. Artifacts with same attributes might be placed in different classes, and it therefore makes comparison between two areas become much more difficult.

In this presentation, I will discuss definitions of all kinds of artifacts between areas to make sure all artifacts compared without the influence of differences between the classification systems of two academic traditions. And through all kinds of artifacts, the similarities in types of artifacts between two areas can be shown. Furthermore, I will interpret the prehistoric subsistence and cultural relationships of these two areas by the similar artifact types and different ratios of artifacts types.

The comparative analyses between imported ornaments and ceramics from the Ki-Wu-Lan Site, I-lan County, northeastern Taiwan

Wang Li-Ying
(Department of Anthropology, NTU)

This research analyzes ornaments and ceramics, the two major imported goods, in the Ki-Wu-Lan Site in Taiwan. I try to discuss different use recognitions and changing meanings of these two imported goods in the Ki-Wu-Lan society. In this presentation, I will interpret how local people use and recognize these foreign goods and highlight their choices and agencies to these materials rather than passively accepting them. It shows that local people had their way to understand and accept the foreign materials.

Ki-Wu-Lan is an Iron Age site located in a riverbank and close to the coast of the I-Lan County, northeastern Taiwan. Its Upper Layer Culture is around 600 to 100 years ago, which is exactly the time of European great trade expansion in Asia. Since

17th Century, Spanish and Dutch established their colonies in Taiwan and they traded and interacted frequently with the local aboriginal people. This background brought a great amount of imported materials to the local societies and these materials were accepted and re-explained by the Ki-Wu-Lan people. According to the archaeological contexts of artifacts and ethnographic records, ornaments were internalized by the local society and became an important part in local ritual cultures. On the contrary, imported porcelains and ceramics were used with local traditional ceramics and maintained their foreign characteristics. The reasons of this phenomenon might relate both local social traditions and different routes of these imported materials.

A preliminary research of consumer behaviors of the Railway Administration employees of the Governor- General Office in Japanese colonial period in Taiwan

LIU Jiunyu
(Master Affiliation)

With the recent publications of archaeological reports and research in Taiwan, we can start to reconstruct the consumer behaviors during the Japanese ruling period (A.D. 1895-1945) from the material perspectives, which cannot be done before. In this presentation, I want to start from the artifacts unearthed from the ruin of Railway Administration dormitory in Taipei to reconstruct the daily life consumption of Railway Administration employee, who are unseen in historical documents. Furthermore, I want to examine the relationship between archaeological artifacts and people who use them to rethink how commercial behaviors influence the material cultures related to self-identity under the social structure of capitalism. In the end of this presentation, I also plan to compare the artifacts excavated from the dormitory of the Dalong common school in Taipei for comparing the similarities and differences between these two types of public servants during the Japanese ruling period. I want to discuss the reasons if there are any differences between two groups of public servants.

Reexamining the spatial structure of the Yangshan Cemetery Qinghai Province, China

Chou Men-jhen
(Department of Anthropology, National Taiwan University)

The Yangshan site is located in the Yangshan Village, Minhe County, eastern Qinghai Province. The site was excavated twice in 1980 and 1981 with 218 tombs and 12 sacrifice pits unearthed. After grouping these burials according to temporal and spatial variables, the excavation report claims that we can divide the whole cemetery into east and west parts, which have similar temporal and spatial structure. The similar structures reflect the marriage or trading interactions among the two kin groups and possibly another latter added group. Furthermore, burial postures and goods also marks the differentiations among kin groups and their interactions

This article will reexamine the Yangshan cemetery by quantitative analyses and spatial analyses. On the other hand, it will also focus on the relationships between burials and sacrifice pits which were ignored in the excavation report.

Afternoon, Saturday 9 June, 2012

Saturday, 9 June (Afternoon)
Venue: Graduate School

Title of Session:
The Chengdu Plain Archaeological Survey – Methods and Results

Organizer:
Rowan Flad (Harvard University) &
Gwen Bennett (McGill University)

Session Abstract
T. B.A. (Unavailable as of 10 May 2012)

Timetable
13:30~13:40: Session introduction
13:40~13:55: LI Shuicheng: Background and History of the Project
13:55~14:10: JIANG Zhanghua & ZHOU Zhiqing: Prehistory and Early History of the Chengdu Plain
14:10~14:25: Gwen BENNETT: Project Goals and Challenges
14:25~14:40: Rowan FLAD: CPAS Sample Methodologies and Results
14:40~14:55: Josh WRIGHT: CPAS Data Management and Ancient Activity Areas
15:00~15:15 Tea & Coffee
15:15~15:30: Pochan CHEN: Hydrology and Transportation Networks in the Chengdu Plain
15:30~15:45: Jade GUEDES: Archaeobotanical Results from CPAS sites
15:45~16:00: Ed HAJIC: Geomorphology of the CPAS survey area
16:15~16:30: Timothy HORSLEY: Geophysical results at CPAS project sites
16:30~17:00: Discussion

Abstracts

Background and History of the Project

LI Shuicheng

T. B. A.

Prehistory and Early History of the Chengdu Plain

JIANG Zhanghua & ZHOU Zhiqing

T. B. A.

Project Goals and Challenges

Gwen Bennett

T. B. A.

CPAS Sample Methodologies and Results

Rowan Flad
(Harvard University)

The Chengdu Plain archaeological project involved a multi-institution, multi-disciplinary investigation of the ancient landscape of the Chengdu Plain around the Neolithic walled site of Pi Xian Gucheng from 2005-2011. This project is one of the first attempts to conduct systematic regional survey focused on archaeological remains in Southern China and the methods we have developed were tailored to the specific challenges of the Upper Yangzi River drainage environment in the Sichuan Basin. The SEAA session presents the history of the project and some of our preliminary results as we contend with the complicated dataset that has resulted from this project.

CPAS Data Management and Ancient Activity Areas

Joshua Wright
(Stanford University)

The decisions we make about size, site boundaries and artifact densities determine how we identify sites, offer explanation of cultural landscapes and describe the dynamics of political landscapes. The field data collection of the CPAS was a complex operation, multiple teams operating in different areas were bringing in different types of data every day following different protocols. The data management system of the project was designed to position the interpretation of past activity on the landscape primarily in the post-fieldwork phase of the survey and to allow the researchers to get as close as possible to the primary data of the survey by providing virtual versions of the field data

from the various survey types used by the CPAS. The approach to data collection was a siteless one in which arrays of individual artifacts, each with a specific spatial location were the primary data of the survey. Resolving these tiny samples into a complex site typology is difficult. Ancient activity areas were defined by an integrated method that combined the main data streams of the survey. As a result, rather than having only a single view of the archaeological landscape we are able to combine the accuracy of the auger survey with the surface survey's broader coverage. The result are many broad categories of activity areas that invite interpretation and resist simple categorization.

Hydrology and Transportation Networks in the Chengdu Plain

Pochan Chen
(Department of Anthropology, National Taiwan University)

T. B. A.

Archaeobotanical Results from CPAS sites

Jade Guedes
(Harvard University)

T. B. A.

Geomorphology of the CPAS survey area

Ed Hajic

T. B. A.

Geophysical results at CPAS project sites

Timothy Horsley

T. B. A.

Saturday, 9 June (Afternoon)
Venue: Museum

Title of Session:
Human population and social organization: technology transfer

Organizer:
Tsujita Jun'ichiro (Kyushu University)

Session Abstract

In this session, the authors will have presentations on the technology transfer within prehistoric, proto-historic and historic Japan from the perspective of social complexity, stratification, interregional interaction and state formation. In the Yayoi period, the technologies of production of stone tools, pottery and metal objects were introduced from southern Korean Peninsula and these technologies were localized and transformed in mainly Western Japan. In the Kofun Period, some new technologies, such as the production of bronze or iron tools, were introduced from the outside of the archipelago, monopolized by the Yamato polity and used for the production of prestige goods. As a result, they were the parts of the prime movers of the state formation process. In the Nara Period, the Ancient State was established. Provincial Buddhist temples were constructed in each region in the 8th century. So the technology of the temple construction diffused to the wide area of the archipelago and a lot of roof tile of the temples were produced locally. How the technologies of artifact production were localized and transformed during these processes in each historical context? Through having these various presentations, the authors will discuss about some characteristics of the technology transfer and interregional interaction within the Japanese archipelago.

Timetable

13:30~13:40: Session introduction

13:40~14:00: Tomoko Ishida, *et al*: *Transformation of local communities of the Yayoi period as seen from the pottery: the significance of analyses of the multi-elemental chemical composition of pottery*

14:00~14:20: Takanori Mori: *The change of production and circulation of stone implements, and social change —The case of the northern Kyushu region Yayoi period of Japan*

14:20~14:40: Yoshinori Tajiri: *The technology transfer of the bronze production*

14:40~15:00: Ayumi Nakai: *The creation of Japanese bronze mirrors: The study of the Magatamamon mirror found at Shikinzan Kofun*

15:00~15:15 Tea & Coffee

15:15~15:35: Jun'ichiro Tsujita: *The control and monopoly of the technology of the prestige goods production in the process of secondary state formation: as seen from the case of the Kofun Period, Japan*

15:35~15:55: Wakako Hayakawa: *The foundation of the Kokubunji temples through analysing the craft of manufacturing roof tiles —a system of the craft transference in a boundary area in Japan—*

15:55~17: 00: Discussion

Abstracts

Transformation of local communities of the Yayoi period as seen from the pottery: the significance of analyses of the multi-elemental chemical composition of pottery

Tomoko ISHIDA[1・2], Kazuhiro YONEMURA[3], Tatsuro ADACHI[1], Nobuhiko NAKANO[1], Yasuhito OSANAI[1] and Yoshiyuki TANAKA[4]

1: Division of Evolution of Earth Environments, Faculty of Social and Cultural Studies, Kyushu University
2: Research Fellow of the Japan Society for the Promotion of Science (PD)
3: Graduate School of Social and Cultural Studies, Kyushu University
4: Division of Basic Structures of Human Societies, Faculty of Social and Cultural Studies, Kyushu University

The Middle Yayoi period (ca. BC 2C - around 1 AD) of the northern Kyushu region of Japan witnessed the development of social complexity from the tribal to the chiefdom level. The process was stimulated by interactions with the southern coastal region of the Korean peninsula and the Han imperial commandery of Lelang established in 108 BC. Through that process, semi-autonomous but densely interacting local communities emerged. This paper investigates the development and transformation of the multi-layered inter-communal interactions by focusing on pottery, which sensitively reflects various elements of social life.

Archaeological pottery studies have revealed various types of social transformations by examining the morphological traits, manufacturing technique and stylistic variability. By applying earth scientific analyses, the authors are accurately determining clay sources and their locations, and the provenance of non-local pots for the purpose of approaching to the social context in which pots were produced, exchanged, carried around and used.

The procedure adopted is as follows.

1) Typologically examining the spatio-temporal variation of pottery.

2) Establishing an appropriate classification standard based on the detailed information on local geological environment by applied earth scientific techniques to the study of excavated potsherds. Measuring multi-elemental chemical composition including rare earth elements by using the XRF and LA-ICP-MS and precisely characterizing the provenance enable to clarify the biography of the analyzed pots, i.e., the production, exchange and consumption of pottery.

3) Integrating the outcomes by modeling the process through which inter-communal interactions were constituted and reproduced through the mediation of pottery.

We hope this presentation shows the effectiveness of the analyses of the multi-elemental chemical composition of pottery in the reconstruction of inter-communal interactions of various scales and characters.

The change of production and circulation of stone implements, and social change —The case of the northern Kyushu region Yayoi period of Japan

Takanori Mori
(Graduate School of Humanities, Kyushu University)

The stone implements as a tool supporting life were elements indispensable to the agrarian society, especially before ironware spreads, the stone tool and the stone materials were important goods. Naturally, the society of the Yayoi period was considered that the portion specified to circulation of such stone tool and materials were

also large. Moreover, in circulation and consumption of stone tool, progress of division of labor exists as a premise, and it was linked with the deployment process of the agrarian society. This paper argued that the changing process of the stone tool production and circulation in the northern Kyushu region of the Yayoi period from the viewpoint of the stone implements, the materials, and consumption. As a result, the following points were obtained. 1) As for the stone tool circulation in the northern Kyushu region of the Yayoi period, the following two aspects were accepted. The process in which the good stone sources were developed inside the Kyushu Island and another process which circulation materialized and developed ignited by external influences, such as a visit of people from a southern Korean peninsula. The end of the Early Yayoi period was a drawing term, and the relation between groups changed. 2) The materials and manufacture technique had differences by stone implements, and some manufacture technique had genealogy in the southern Korean peninsula. The difficulty of manufacture according to stone implements gave added value. A big change was observed in Late from Middle of the Yayoi period by changes of stone tool production and circulation. It follows from what has been said thus far that stone tool production and circulation were closely connected with the social change, and developed.

The technology transfer of the bronze production

Yoshinori Tajiri
(Kyushu University Archaeological Heritage Management Office)

Bronze artifact was produced in Kyushu and the Kinki area in the Japanese archipelago in the Late Yayoi period. In both areas, produce bronze artifacts are similar, but the production technologies are different. In this paper, I have two bronze artifacts, small imitated mirror and Tomoegata Doki. The bronze ware produced in Kyushu uses a mold made by a stone, and the bronze ware produced in Kinki uses a clay mold. As a result, the form is similar, but the details including a pattern and the section form of both areas are different. This transmits the form information, but the production technology shows that it does not spread. The technology transfer is not accepted, and the relations between manufacturing organizations show that the alternating current at the technical level was not performed.

The creation of Japanese bronze mirrors: The study of the Magatamamon mirror found at Shikinzan Kofun

Ayumi Nakai
(Kyushu University)

The purpose of this study is considering the creating process of Japanese bronze mirrors pattern through the analysis of a Japanese mirror excavated from Shikinzan Kofun. In Japanese archipelago in the 3rd to 4th century (the early Kofun period), a lot of Kofun

had many bronze mirrors. They are Chinese mirrors, Sankakubuchi-shinjukyo type mirror not decided where made and Japanese mirrors. Japanese mirrors were modeled after Chinese mirrors. Therefore, the classification of Japanese mirrors was based on the one of Chinese mirrors in the past. So it was considered that one series of Japanese mirrors could correspond to one series of Chinese mirrors which was mainly model of it. However, in recent years, the creating process of Japanese mirrors pattern was studied, it is suggested that Japanese mirrors pattern were not intended to represent the world of Chinese mirrors pattern, but create the original system of Japanese mirrors.

The object of this study is one Japanese mirror found at Shikinzan Kofun. This mirror has a comma-shaped bead motif in outer zone, called Magatamamonkyo. The similar mirrors to it have not been found. So, this is a *one-off* mirror. A large number of studies have been made on the mainly mirror, little is known about one-off mirror. The analysis of Magatamamon mirror can help to consider the creating process of Japanese mirror pattern in terms of *one-off* mirror.

There are 2step analyses. First, I specified the model of Magatamamon mirror pattern. Second, I considered the creating process of Magatamamon mirror pattern. As a result, it is clear that it was created on a base of Chinese mirror, the relief beast-band mirror, and that the creating process of it is characterized by the blending of many models, the replacing of the unit pattern with other series of mirrors.

Magatamamon mirror pattern was modeled after Chinese mirrors, but we can say that it was made as a new series of Japanese mirrors. And, the above creating process of Magatamamon mirror is common with it of main series of Japanese mirrors. Therefore, it is suggested that the creation of Japanese mirrors had common rule, 2 characters.

The control and monopoly of the technology of the prestige goods production in the process of secondary state formation: as seen from the case of the Kofun Period, Japan

Jun'ichiro Tsujita
(Kyushu University)

In considering the production of 'prestige goods' in the Ancient state formation processes, especially in the peripheral area of the world empire, we would see the cases in which various goods are not only imported and distributed, but also imitated and produced locally. The author will consider the two points of this problem, based on the case of the secondary state formation of Kofun Period, Japan: 1) the technology of production of 'prestige goods' (e.g. bronze mirrors, jasper/ tuff ornaments, iron weapons and armors, horse ornaments etc.) was limited to or monopolized by specific regions, 2) the priority was not given to the meanings or world view in the original context, but to the form, size and technology itself. During the 3rd to 6th centuries, on the one hand, the production technology of prestige goods was not shared in broader area of the Japanese archipelago, but limited to Yamato polity continuously. On the other hand, the part of iron tools and Sue earthenware were produced in the each region of the archipelago, but the technology of production was basically controlled by and distributed from Yamato polity. Namely, initially the monopoly of the technology and the control of prestige

goods distribution were the main roles of Yamato polity, especially during the 3rd to 5th centuries, and consequently, these led to later political centralization during the late 5th to 7th centuries.

The foundation of the Kokubunji temples through analysing the craft of manufacturing roof tiles —a system of the craft transference in a boundary area in Japan—

Wakako Hayakawa
(Graduate School of Social and Cultural Studies, Kyushu University)

This study examined a system of the craft transference in erecting the Kokubunji temples in the boundary area in Japan, the Kagoshima prefecture. The Kokubunji temples are provincial temples which have been constructed in each ancient provinces based on the emperor Shomu's order in the 8th century, the Nara period. In the Kagoshima prefecture, called the Satuma and Ohsumi in the name of the ancient province, it have been considered that there have been the craft transference for building temples at the time of erection of the Kokubunji temples because of lack of the craft for building it until then. The craft of the roof tiles were introduced into the area as a part of craft complex. It is also said that there were influences of craft from the Buzen, Higo, and Hyuga ancient provinces, since there had been seen the similar design of the eave tiles to the Buzen, Higo, and Hyuga ancient provinces' in the Satsuma and Ohsumi ancient provinces. In this analysis, it is made clear the craft of manufacturing the eave tiles and compared between materials in each area. As a result, the similarities in design are not corresponds with the similarity of craft. It is possible to mention that there has been the multiple craft transference from some different area in building the Kokubunji temples in the Satsuma and Ohsumi ancint provinces.

Saturday 9, June (Afternoon)
Venue: Community Centre

Title of Session: *Issues in Contemporary Korean Archaeology*

Organizers:
Hyojai Im (Seoul National University) &
Yangjin Pak (Chungnam National University)

Session Abstract
This session is designed to illustrate the most recent developments in Korean archaeology. Eleven papers will be presented covering from Palaeolithic Age to later historical Three Kingdoms Period. Each of these papers will discuss some of the most important research issues in its own field of contemporary Korean archaeology. This session will demonstrate to the audience what the current scholarship has achieved so far and discuss some of the challenges that remain to be solved. Two designated

discussants, with their own expertise in Korean archaeology as well as East Asian archaeology in general, will provide constructive comments, questions, and suggestions at the end of the session.

Timetable

13:30~13:45: Yoo Yongwook: A Preliminary Comparative Analysis of Korean Palaeolithic Raw Material: does its mechanical property seriously matter?
13:45~14:00: Pak Yangjin: A Preliminary Study of Transition from Neolithic to Bronze Age Pottery in Korea
14:00~14:15: Kim Bumcheol: Understanding Variability of Rectangular Dwellings in the Early Bronze Age, Central Western Korea
14:15~14:30: Kim Gwongu: Clarifying the Ritual Types Shown in the Korean Bronze Age Dolmens and Their Implications (provisional)
14:30~14:45: Woo Jung-Youn: *Macro and Micro Contexts of Songgungni-type Burials in Central-western Korea*
14:45~15:00: Cho Daeyoun and Park Seohyen: An examination on the production specialization of stone objects in the Korean Bronze Age
15:00~15:15 Tea & Coffee Break
15:15~15:30: Choi Jongtaik: Structural Characteristics and Historical Meanings of Koguryo Tombs in South Korea
15:30~15:45: Yang Sieun: New Achievements of Koguryeo Archaeological Research in South Korea
15:45~16:00: Choi Sung-rak: The formation and Change of the Ancient Tombs in Yeongsan River Basin, South Korea
16:00~16:15: Kim Gyongtaek and Kim Seongnam: Developmental Processes of Sabi Capital Town of Baekje Kingdom
16:15~16:30: Im Hyojai: An Ancient Ritual Site in Korea and Its Implications
16:30~17:00: Comments by Discussants (Sarah M. Nelson and Gina L. Barnes)

Abstract

A Preliminary Comparative Analysis of Korean Palaeolithic Raw Material: does its mechanical property seriously matter?

Yoo Yongwook
(Department of Archaeology, Chungnam National University)

Majority of researchers agrees that the crudeness of lithic tools is influenced by the coarseness and mechanical poorness of locally available raw material. In particular, the quartz and quartzite are main candidates to inevitably produce simple tools and have been entitled poor quality raw material category. However, we do not have any solid evidence to support that these two rocks are really "hard-to-deal" resource. In order to furnish a reliable background to classify excellent and poor quality raw material, a comparison of mechanical properties between so-called "high-quality" raw material—flint and chert—and quartz/quartzite rocks from the Imjin-Hantan River Area,

Korea was made. The flint and chert were obtained from well-known classic palaeolithic sites of Europe: St. Acheul and the vicinity of the Somme River, Les Eyzies and the vicinity of the Vezere River, Atapuerca of Spain, Kara-bom of Altai Russia. The indices measured for quantifying mechanical properties include 1) tensile strength, 2) isotrophy, 3) Young's modulus and 4) elasticity. The preliminary result is that any significant difference is hardly identified in these indices; the intra-variability of flint-chert group is larger than inter-group variability and the quartz/quartzite group does not show any mechanical inferiority in terms of those four indices above. This result introduces a new hypothesis that the physical constraints imposed on the crude nature of the IHRA implements should be pursued other than sheer mechanical indices of quartz and quartzite.

A Preliminary Study of Transition from Neolithic to Bronze Age Pottery in Korea

Pak Yangjin
(Chungnam National University)

This paper aims to analyze the transitional period from the Neolithic Age to the Bronze Age in Korea with a particular focus on the change in pottery assemblage. The earliest types of pottery vessels of the Bronze Age will be examined and discussed in their relation to those of adjacent areas, especially of northeast China. The decoration elements of the early pottery vessels as well as the composition of pottery assemblage of different areas of Korea and northeast China will be compared to each other. It will also discuss other important developments in early Bronze Age pottery vessels. The result of this analysis will help us define the chronological framework of the Korean Bronze Age and understand the nature of cultural interaction among different areas of northeast Asia and its effects on the development of the new pottery culture in Korean Peninsula. It will also help us understand the nature, scale, and pace of major cultural developments during this transitional period and provide an opportunity to explore various methodologies for the comprehension of an important change in material culture.

Understanding Variability of Rectangular Dwellings in the Early Bronze Age, Central Western Korea

Kim Bumcheol
(Chungbuk National University)

An attempt at relating Early Bronze Age (hereafter EBA) rectangular dwellings to the familial structure is not that challenging any more in Korean archaeology, and has contributed for better understandings on the social organization in the context of EBA, Korea. However, some current practice in interpreting archaeological data diminishes explanatory strength of the attempt. It is a very interpretation that long rectangular dwellings were precedent to shorter ones, classified by the ratio of their long to short

axes. However, its logical or empirical basis is not that solid. Examining data in opportunistic manner and applying the concept of local cultures of the Early Bronze Age in limited manner seem to place in the backside of the interpretation.

Challenging the practice prevalent in the Bronze Age archaeology, I try to establish a new archaeological explanatory model, focusing on some micro aspect of dwelling feature. The model includes understanding on the Early Bronze Age dwelling patterns—especially, of Yeoksamdong- and Heunamri-types— in relation to the concept of household developmental cycle. Analyses on dwelling data from both types's settlements in the central-western Korea say that the variation of floor shape could have been a function to varying family structure, in which parent generation and their off-spring(s) have resided in the same dwelling structure. That is, the dwellings of different floor shapes, such as short, middle, and long rectangular ones, might have been adaptive to the changes in number of family members but not represented a simply stylistic variation in terms of temporal and/or spatial dimensions.

Clarifying the Ritual Types Shown in the Korean Bronze Age Dolmens and Their Implications (provisional)

Kim Gwongu
(Keimyung University)

This paper aims to clarify the ritual types shown in the Korean Bronze Age dolmens and review the implications in their socio-economic context. To do this aims the archaeological examples related to rituals have been gathered and they have been classified as several types such as potsherd-scattering onto dolmen boundary(A), burying red-burnished pottery inside dolmen with stone dagger and arrowheads(B), breaking polished stone dagger on purpose and burying them into dolmen(C), stabbing the ground in front of the related dolmen(D), scorching the dolmen bottom for cleansing the burial ground(E), burning something at facilities near dolmen(F), and more systemized ritual at a cemetery ritual center like the *Igeumdong* example(G).
The above-mentioned ritual might have multi-layered symbolic meanings and functions, which could be interpreted and reproduced properly in their socio-economic context.

Basically the above-mentioned ritual types of dolmens might have been practiced to aim warding off evil spirits(I), serving the land god(II), succeeding this world to the next world(III), reproducing socio-economic and religious power(IV) during mortuary ceremony. After burial memorial rituals must have been arranged. So some ritual types might be related to part of a memorial ritual(V), which also might function for reproducing socio-economic and religious power in relation with ancestor worship.

The ancestor worship had become important memorial ceremony to legitimize territorial rights during the Korean Bronze Age, which had been featured as sedentary farming societies. As agriculture intensified the ancestor worship in the Korean dolmen society had become more essential. Such socio-economic context had been thought to force dolmens to be aligned according to blood affinity or social affinity in group cemeteries.

Ritual types(A, B, C, D, E, G) and their main purposes(I, II, III, IV, V, VI) had been

inter-wined. Ritual type G near aligned dolmen cemeteries in overwhelmingly differential size with purpose III and IV would reflect the lineage of the dolmen-builders and their landownership with ritual power.

The meanings of dolmen rituals have been examined. They might be adopted as a social strategy to emphasize mainly the dolmen society chiefs' lineage and emerging socio-economic power although there might been some temporal and regional variations in their modification. So their meanings also must be related to such aspects.

Although there might be some conjecture and logical leaps, it is considered to be fruitful to clarify ritual type found from dolmens and trace their multi-layered symbolic meanings in their socio-economic contexts for better understanding the ideology of dolmen-builders. The distributions of dolmens in Korea and spread into the Japanese Archipelagos and their diverse local variations might during the Korean Bronze Age and the Japanese Yayoi Period show not only the strong socio-economic necessities of dolmen ideology but also differential necessities by the related groups' social strategies under different natural and socio-economic environments , which might keep changing

Macro and Micro Contexts of Songgungni-type Burials in Central-western Korea

Woo Jung-Youn
(Institute for Archaeology and Environment, Korea University)

Songgungni-type burials, which consist of stone cists, earthen pits, and jar coffins, are representative of Korean Middle Bronze Age burials in central-western Korea. In previous studies of these burials, material patterns in macro contexts are thought of as a simple summation of material variations in micro contexts, while material variations in micro contexts are regarded as a simple exemplification of or exception to material patterns in macro contexts. In opposition to these decontextualized approaches to burials, I examine how material patterns in macro contexts are maintained or modified according to the association of burial attributes in micro contexts. As a result, a major difference is found between burial sites near the Songgungni site and those away from it. In the former sites, burial attributes are associated in hierarchical ways to represent sequential relationships between burials. In the latter sites, on the other hand, burial attributes are associated in diverse ways to represent complementary relationships between burials. On the basis of the distribution of daily resources in the same area, this difference is interpreted as a difference in exercising power through burials.

An examination on the production specialization of stone objects in the Korean Bronze Age

Cho Daeyoun and Park Seohyeon
(Chonbuk National University)

The evidence of stone production found in the Korean Peninsula provides a rare opportunity for the detailed examination of changes in production organization in the

Bronze Age. In this paper we present the results of our study which examines diachronic change in the production organization of stone objects at this time. Along with production evidence from settlements sites, stone products and manufacturing tools will be examined in order to assess the degree of production specialization in this period, which will enable a better understanding of how production specialization may be linked to social and economic change.

Structural Characteristics and Historical Meanings of Koguryo Tombs in South Korea

Jongtaik Choi
(Department of Archaeology and Art History, Korea University)

In 1981 a Koguryo-type stone-chamber tomb with a horizontal entrance passage was reported at Bangdong-ri in Chuncheon, for the first time in Southern Korea. Since then, a number of tombs, which are similar to the Bangdong-ri tomb in structural features, were found in Southern Korea. In these tombs, however, few artefacts were found which are typically found in Koguryo-type tombs. Subsequently, little progress has been made in studying this type of tombs in Southern Korea. It is since the second half of the 2000s that the cases, in which Koguryo pottery was found in that type of tombs, increased in number. As a result, the existence of Koguryo tombs in Southern Korea was confirmed.

On the basis of the above, I classified thirty-five so-called 'Koguryo-type' tombs as 'Koguryo tombs.' Then, an attempt was made to formulate their characteristics and determine their chronological relationships. For this purpose, their diverse attributes were compared with one another, including the location and distribution of the tombs, the positions of an entrance passage and a chamber, the way in which a chamber was constructed, the orientation of a chamber, the floor type of a chamber, the type of a platform for coffin, and grave goods.

In order to see the chronological relationships of the tombs, the plane shape of a chamber and grave goods were referred to. As a result, I determined their chronological relationships as follows. The tombs, which have a long-rectangular shaped chamber and a coffin placed directly on the fire-hardened chamber-floor without a platform for coffin, are dated to the mid-fifth century. The tombs with a rectangular-shaped chamber are dated to the late-fifth century. This chronology, together with historical circumstances, suggests that the tombs with a long-rectangular shaped chamber were constructed in relation to the expansion of Koguryo to central Korea in the mid-fifth century, and that the tombs with a rectangular-shaped chamber were made after Hanseong had fallen in 475. Moreover, those who were buried in the tombs seem to have had a high status. Finally, settlement or fortress sites found around the areas, where tombs are located, indicate the possibility that Koguryo tried to govern the lower area of the Han River and the upper areas of the Bukhan and Namhan Rivers, as part of their territory.

New Achievements of Koguryeo Archaeological Research in South Korea

Yang Sieun
(Seoul National University Museum)

In the fifth century CE, Goguryeo (Koguryo, 高句麗) moved its capital south in northern Korea and then left many remains and relics before the collapse. After dominating Hanseong(漢城) at 475, Goguryeo built a command center to move southward in Mongchon Fortress. And then Goguryeo advanced to the Geum River basin. In this regard, fortresses which are barricaded by the wooden fence and tombs which are independently located on the traffic route are left in the late 5th century. Goguryeo pottery of these sites shows the surface decoration of dot-rows(點列) or wave lines(波狀) and the traces of tanal(paddling, 打捺).

In the 6th century, Goguryeo retreated from the Geum River basin to the Han River basin due to Baekje(百濟)'s power expansion. That time, Goguryeo fortresses of Acha Mountain switched the defense system from the wooden fence(木柵) to the stone wall(石築 城壁). These fortresses were organically interlinked, so fortresses in Acha Mountain themselves probably served as a single mid-scale castle, whose administrative center is assumed to have been Hongreonbong Fort No.1.

In 551, as the allied powers of Silla(新羅) and Baekje moved northward, Goguryeo retreated further to the north in the Imjin and Hantan River basin. That time, Goguryeo fortresses of Imjin River basin also switched the defense system from the wooden fence to the stone wall. That area's center is assumed to have been Horogoru Fortress which built the tile-roofed house.

As explained above, studies on Goguryeo remains are carried out continuously and a lot of outcomes have been produced in a short period. In particular, as they were built in a specific period, they can be used as a chronological benchmark for comparative studies with Goguryeo remains or relics in North Korea and northeast China.

The formation and Change of the Ancient Tombs in Yeongsan River Basin, South Korea

Choi Sung-rak
(Mokpo National University)

The most salient feature in cultural transformation of the Yeongsan River Basin during the 3rd ~ 4th century was the change in mortuary practice from Jukumyo to the mound jar-coffin tombs. Although Jukumyo initially came to light in the central part of the Peninsula, it is found throughout the entire southwestern part of Korea including the Yeongsan River Basin. It is now recognized that Jukumyo was the main burial system in the Yeongsan River Basin from the 1st to the 3rd century. The shape of the encircling ditches changed from square to oval, and finally to trapezoid. By the late 3rd century, Jukumyo gave way to small mound tombs containing large jar-coffins, which occurred only in the Yeongsan River Basin, rendering the jar-coffin tombs as a cultural feature unique to the this region.

At the end of the 5th century, the mound stone-chamber tombs appeared, along with

unique keyhole shaped tombs. Especially, 13 keyhole shaped tombs scattered around the Yeongsan River Basin brought on many mysteries and opinions are divided on the characteristics of the tombs. I believe the buriers of the tombs are regional people and the style of the tombs are result of exchange with Japan.

According to ancient records, including documents from China, there were several small polities in the Yeongsan River Basin during this period, but there is no evidence suggesting any political unification until the end of the 5th century. The ancient Yeongsan River Basin society is called by various names; a popular one is Mahan or sometimes jar-coffin society. However, the ancient Yeongsan River Basin society should be named according to documented records. Therefore, this society at the late 4th century should not be called Mahan according to the archaeological characters. The entity of the Yeongsan River Basin from the late 4th to the end of 5th century can be seen as the Shinmi-Jegug (新彌諸國, various small countries representing Shinmi) which shows up in Chinese records until the late 3rd century. What I would like to do is to explore the internal perspective and identify the ancient society from a preexisting regional power. Even though the Yeongsan River Basin was under the influence of Baekje, it still kept its unique culture until the end of the 5th century, when it was directly integrated into Baekje.

Developmental Processes of Sabi Capital Town of Baekje Kingdom

Kim Gyongtaek (Korean National University of Cultural Heritage) and
Kim Seongnam (Buyeo Cultural Heritage Center)

In ancient Korean history, the Three Kingdoms Period (18 BC ~ AD 660) refers to a period when three kingdoms, Baekje, Goguryeo, and Silla coexisted. According to *Samguksaki* (*History of the Three Kingdoms*), the history of Baekje is divided into three phases to the location and/or movement of the capital town: Hanseong phase (18 BC ~ AD 475), Ungjin phase (AD 475 ~ 538), and Sabi phase (AD 538~660). Sabi (current Buyeo) region was the third and last capital of Baekje, and Baekje of Ungjin (current Gongju) phase, which had already planned to move her capital to Sabi, had prepared and designed urban planning of Sabi capital town in advance as early as in the early 6th century, the end of the Ungjin phase. There might have been at least three stages in the construction of the Sabi capital town. The first phase (from the end of the Ungjin phase to the third quarter of the 6th century) is the stage of advance preparation of urban planning and preparing foundation of capital town. In the second phase (from the fourth quarter of the 6th century to the first quarter of the 7th century), the Sabi took on appearance of a capital town of an ancient kingdom. In the third phase (from the second quarter of the 7th century to 660), urban planning of the Sabi capital town was complemented and it reached the highest stage. These three developmental stages of Sabi capital town system based elaborate urban planning is discussed with available archaeological data.

Im Hyojai
(Seoul National University)

This paper aims to introduce Jungmak-dong Site on the southwestern coast of Korean Peninsula and discuss its relation to other contemporary ritual sites in Korea and Japan, especially the Okinoshima Site on an island off northern Kyushu, Japan. It also discusses the political, social, and religious significance of these ritual sites in ancient northeast Asia, including Goguryeo, Baekje, Silla, and Japan.

Saturday, 9 June (Afternoon)
Venue: Kyushu U. Nishijin Plaza

Title of Session:
Interfaces of Natural Scientific Approaches and Humanistic Investigations

Chair:
Hau Ling Eileen LAM (Department of Fine Arts, The Chinese University of Hong Kong)

Timetable
13:30~13:40: Session introduction
13:40~14:00: Hau Ling Eileen LAM Beyond Simulation: The Glass Garment and Its Significance in Han China
14:00~14:20: Sunil Gupta Indo-Pacific Beads as Indicators of Early Exchange between Esatern Indian Ocean Sphere and Far East (1st century BC – 5th century AD)
14:20~14:40: Yimin Yang The Application of Micro-CT on the Research of Early Faience in China
14:40~15:00: Junko Higashimura The Splicing and Spinning Techniques in Ancient Japan
15:00~15:15 Tea & Coffee
15:15~15:35: Naoko Kizawa A comparative study of excavated wooden combs in East Asia
15:35~15:55: Yan Wu The Effects of Phytolith Morphology during Heating, Implications for Archaeological Interpretation
15:55~16:15: Minkoo Kim Bread Wheat (Triticum aestivum L.) in Ancient Korea: A Size Comparison of Carbonized Grains

Abstracts
Beyond Simulation: The Glass Garment and Its Significance in Han China

Hau Ling Eileen Lam
(Department of Fine Arts, The Chinese University of Hong Kong)

Most publications about early Chinese glass have explored issues of origin and studied this medium primarily as a reflection of China's contacts with outside civilizations. This paper, by contrast, attempts to focus on the very different subject of the glass garment, which undoubtedly was locally manufactured. Made exclusively for burial, this type of artifact was not ubiquitous and, moreover, was favored over a rather short period of time—from late Western Han (206 BC–AD 8) through early Eastern Han (AD 25–220).

But the use of glass to manufacture burial objects (primarily bi discs), in fact, flourished as early as the Warring State period (481–221 BC) and declined during the Western Han. Tomb finds to date indicate that glass bi discs originated in Hunan province. By the Western Han, they were widely distributed, albeit in small quantity. As glass bi discs were becoming less prevalent, glass garments came into being.

Because of the ostensive similarity of Chinese glass and jade, scholars generally perceive glass garments as less precious simulations of those of jade. Evidence to date, however, indicates that this distinction does not hinge on jade's availability. Some of the same tombs that contain glass garments also include works of jade. Moreover, as jade garments are occasionally found in non-elite tombs, glass garments appear predominantly in elite tombs.

In addition to subjects of date, distribution, and patronage mentioned above, this paper will address the importance of glass garments in Han burial rituals. Together, these issues may illuminate the role of glass in contemporary perceptions of the material.

Indo-Pacific Beads as Indicators of Early Exchange between Esatern Indian Ocean Sphere and Far East (1st century BC – 5th century AD)

Sunil Gupta
(Allahabad Museum, Ministry of Culture, Government of India)

Indo-Pacific type monochrome drawn glass beads were produced in large numbers in India and Southeast Asia during the BC-AD transition. Large numbers of Indo-Pacific beads are found in Yayoi and Kaya Period sites in Japan and Korea, indicating the opening of early long distance maritime exchange networks between the eastern Indian Ocean sphere and the Far East from the 1st century BC onwards. The first recorded Indo-Pacific beads from Yayoi tombs are found at the Yoshitake-Takagi site in Fukuoka and Higashiyamada-Ipponsugi site in Saga. The import of Indo-Pacific Beads increases dramatically in the Middle and Late Yayoi periods in Japan (1st – 3rd century AD). The paper proposes to examine the reasons for the sudden increase in the import of Indo-Pacific beads into Japan and Korea in the early centuries AD. In particular the bead trade between the eastern Indian Ocean sphere and Far East is investigated with the dynamics of the events shaping the Indian Ocean Interaction Sphere, especially the Roman sea trade initiated from Egypt in 30 BC. It is postulated that Roman sea trade with India and Indian Ocean lands triggered a chain of events, indicated by spread of Mediterranean glass and rise of bead crafting centres on both shores of the Bay of Bengal, which led to the opening of the exchange networks with the Far East.

The Application of Micro-CT on the Research of Early Faience in China

Yimin Yang
(Department of Scientific History and Archaeometry, Graduate University of Chinese Academy of Sciences)

Faience is supposed to be the precursor of ancient glass. The research about Chinese early faience will help further understand the origin and development of Chinese ancient glass. In this paper, non-destructive methods, including SR-μCT, XRD and EDXRF were used to analyze one faience bead from Peng state in Western Zhou period (BC1046-BC771). The results showed that the body of analyzed bead is composed of micro quartz particles; so the body is denser than the body of Western faience, implying that the bead was not imported from the West. The manufacture procedure is as followed: based on cylinder core, the quartz particles were piled to form the body, which was then glazed; after firing, the core was stripped. This technology should be influenced by the bronze and protoporcelain production. Because micro CT as nondestructive method could disclose the microstructure, it would have great potential to study ancient faience.

The Splicing and Spinning Techniques in Ancient Japan

Junko Higashimura
(National Museum of Ethnology)

Asian people have made cloth of hemp, ramie, and various barks for a long time. To use these fibers as threads, they have to go through the following process. First of all, fibers are spliced together at the ends ("Umu" in Japanese, in other words, joining fibers together into one long thread). Secondly, the continuous joined fibers are spun with a spindle. This process is different from that of silk thread quickly reeled off, and that of cotton and wool threads simply spun into.

According to ethnological observations in Japan and other Asian countries, it is clear that splicing methods vary by area and material (Nagano, G.; N. Hiroi 1999).
Archaeologists reported some examples of hemp and ramie cloth excavated from sites in Japan. However, most of them have not paid attention to splicing methods, though they referred to spinning methods.

The author emphasizes the need to distinguish spliced parts from spun parts for the purpose of understanding the textile-making process in ancient times. Furthermore, this point will be permit distinction from silk cloth which has been also excavated in Japan.

At first, the author confirms splicing methods succeeded in Japan, Korea, and Taiwan. Next, based on these ethnological data, the author observes some examples of hemp and ramie cloth from the Bronze Age to the Middle Age in Japan, and points out splicing parts, distinguished from just spinning parts.

The fact also supports a verse in the Man' yoshu; the earliest extant anthology of Japan, that is, composed a scene of a woman busily splicing hemp or ramie fibers at night(3484,vol.14). This study is an attempt to deeply understand splicing techniques and will be clarify the textile-making process in ancient times.

A comparative study of excavated wooden combs in East Asia

Naoko Kizawa
(Gangoji Institute research of Cultural Proprerty)

In Japan the appearance and genealogy of "*yokogushi*" wooden combs are not clearly known. "*Yokogushi*" is the general name of combs whose shape is horizontally long compared with its vertical length.

This study aims to examine "*yokogushi*" combs and their background from the viewpoint of manufacturing techniques and selection of wood species. Then I would like to reveal the genealogy of "*yokogushi*" focusing also on Chinese and Korean combs.

It is known that during the Kofun period (from the A.D. 4rd to A.D.6th centuries) torn bamboo was being used; their center was bound and piled. Then its round top end was coated by urushi lacquer. These types have been found from the Kofun mounds and settlements and faded out at the end of the period. They are the typical type of comb found only in Japan.

On the other hand recent research revealed that the earliest "*yokogushi*" appeared at the end of the A.D.4th century or at the beginning of A.D.5th century. These cases were found at Higanden site in Anjo city, Aichi Pref. and Kosakaai site in Yao city, Osaka Pref. According to the recent research, they have some similar characteristics with Korean combs excavated from Gyeongsangbuk-do area. Therefore I suppose that early "*yokogushi*" combs had been made by imitating introduced techniques though applying their original techniques to make"*tategushi*".

After that, manufacturing tools of combs changed, especially the way of making the teeth. This fact is verified by the case of Rokudai-A site, Mie Pref. dated to the late 5th century, which are made using like saws. It means manufacturing tools and techniques changed and developed by influence of the Korean peninsula.

I would like to suggest that the above-mentioned fact gained by research of organic materials will be also helpful to understand the circumstances of East Asian countries in those days.

The Effects of Phytolith Morphology during Heating, Implications for Archaeological Interpretation

Yan Wu
(Department of Scientific History and Archaeometry, Graduate School of Chinese Academy of Sciences)

This study examines the conditions necessary for alteration of phytolith morphology of Oryza sativa L. (Poaceae), Celtis bungeana L. (Ulmaceae), Pteroceltis tatarinowii Maxim. (Ulmaceae), and Morus alba L. (Moraceae) at different temperatures. Also, alteration of the morphology of different part of rice takes place at high temperature. The morphological stability of phytoliths derived from husk and leaves of rice at high temperature is directly related to their elemental composition within different phytolith types. The current study is based on experimental evidence examined using SEM-EDS

for characterizing the composition of elements within individual rice phytolith. Therefore, we can not simply assign all phytolith to a single melting temperature threshold.

Bread Wheat (Triticum aestivum L.) in Ancient Korea: A Size Comparison of Carbonized Grains

Minkoo Kim
(Department of Anthropology, Chonnam National University)

Bread wheat (*Triticum aestivum* L.) started to be cultivated in East Asia no later than the third millennium BC. Archaeobotanical research on carbonized wheat grains over the past decades has indicated that bread wheat of a compact form, which is called "the Ezo wheat" in Japan, was present in the Far East Asian region (the Maritime Province of Siberia, the Korean peninsula, and the Japanese archipelago) during the early stage of wheat cultivation. In response to this early observation, carbonized wheat grains from the southern part of the Korean peninsula were measured and their size was compared across the sites. The examination indicates that grains dated over the period of A.D. 200-400 were considerably smaller than the modern specimens but were plumper than the previously reported Ezo wheat. The new data sets reveal that wheat with plumper grains became prevalent across the southern region of the peninsula around the third century AD, and continued to be cultivated until the Joseon period (1392-1897) as suggested by the remains from Dodong-ri and Podu.

Morning, Sunday 10 June, 2012

Sunday, 10 June (Morning)
Venue: Graduate School

Title of Session:
Human population and social organization: interaction

Organizer:
Takeshi Ishikawa (Kyushu University)

Session Abstract
This session will attempt to examine human population and social organization from various perspectives based on the five subthemes. The subthemes relies on keywords of "kinship", "stratification", "gender", "interaction", and "technology transfer". Each paper will cover various subjects from prehistoric to modern period and various areas over the East Asia. Wide-range aspects of past human population and social organization will be shed light on by these various subjects and interdisciplinary methods.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Shinpei Hashino: Reexamining mortuary practices in the beginning of the Yayoi period: human movement and interaction
9:30~9:50: Kazunori Misaka: The Pottery Manufacturing Techniques and Cultural Change: A Study of the Japanese Archipelago in the Jomon to the Yayoi Period
9:50~10:10: Ari Tanizawa: The Yayoi-Kofun transitional period as seen from the production and distribution of comma-shaped beads
10:10~10:30: Yuki Iwahashi: The Meaning of Morphological Resemblance of Rock-cut Tombs in Tohoku, Kanto and Central Part of Kyushu

Abstracts

Reexamining mortuary practices in the beginning of the Yayoi period: human movement and interaction

Shinpei Hashino
(Kyushu University)

We can be fairly certain that rice farming originated in the southern part of the Korean peninsula in the Yayoi period of Japan. In addition to paddy-field agriculture, many other cultural traits were introduced from Korea to Japan in this period. One of these cultural traits is mortuary practices involving dolmen. The author once argued about the

origin and diffusion of dolmens and graves originating from these dolmens. Subsequently, the excavation report of some important sites was published, and some new views were submitted. Some researchers have claimed that direct interaction existed between the southern part of the Korean peninsula and the Chugoku-Shikoku region of the Japanese Islands, on the basis of the analysis of the mortuary practices distributed across these regions. However, the author do not share these views since these views have some problems in explaining the relationship between the chronology of material culture of Korea and that of Japan, and in their methods for recognizing the existence of interaction between Korea and Japan. The purpose of this paper is to reexamine how dolmens and graves originating from these dolmens spread across the Japanese Islands and were accepted in each area of the initial and early Yayoi period. This is done by analyzing the attributes of mortuary practices, pottery in cemetery sites, location of these sites, and relationship between these archaeological remainders and the features of human bones recovered from cemetery sites, which will be used to further explore human movement and cultural transmission and acceptance behind these phenomena.

The Pottery Manufacturing Techniques and Cultural Change: A Study of the Japanese Archipelago in the Jomon to the Yayoi Period.

Kazunori Misaka
(Kyushu University)

For the result of the archaeological and physical anthropological studies, it is clear that the cultural change from the Jomon to the Yayoi period in the Japanese Archipelago was caused by the immigration from the southern part of Korean peninsula in the Late Bronze Age with their cultural elements, such as paddy rice farming, a grave, a dwelling, arms, tools, and potteries. This is a part of the process that agriculture which appeared at the Chinese Neolithic Age was diffused into peripheral hunter-gathering societies in East Asia.

However, the evaluation to the cultural change is differs for researchers. This is due to unclearness of the process of the cultural change. In order to solve this problem, we focused on the pottery manufacturing techniques and the pottery style. Some of the pottery manufacturing techniques, such as method of surface treatment, adding clay stripes and firing, cannot be copied only by looking at finished goods. So we can read the trace of the contact between different cultural groups, such as immigration. In addition, it is possible to reconstruct the process of cultural change by analyzing the frequency of native and foreign elements.

According to recent studies, there is a strong possibility that origin of immigrants ware Yeung-Nam area. Therefore we clarify the difference of the pottery manufacturing techniques and the pottery style between the northern Kyushu in the Latest Jomon period and Yeung-Nam area in the Late Bronze Age. Then, after providing the division of time and space based on archaeological chronology and geographical feature in the northern Kyushu, we analyze the frequency of the foreign and the native elements of pottery manufacturing techniques and change of the pottery style. Through the result of

the analysis, we discuss the process of the cultural change in detail.

The Yayoi-Kofun transitional period as seen from the production and distribution of comma-shaped beads

Ari Tanizawa
(Kyushu-university)

This paper examines the transformation of exchange systems in the Japanese archipelago from the late Yayoi period to the early Kofun period by focusing on the production and distribution of comma-shaped beads. This time period witnessed the formation of dense interaction and exchange networks covering western Japan and parts of eastern Japan, in which the Kinki region became the centre. The distribution pattern of comma-shaped beads and its change appears to well reflect this process.

By examining the distribution pattern of beads from the Late Yayoi to the Early Kofun period, this paper has revealed the following: 1) in the late Yayoi period, beads were produced in multiple areas far away from one another and exchanged through distinct networks in which they were separately involved: 2) this pattern of production and distribution significantly changed in the early Kofun period: 3) in the early Kofun period, comma-shaped beads became unified in terms of the raw material and shape, and their distribution became centered around the Kinki region; the number of the finds and the size declined as one went away from the region. This suggests that comma-shaped beads began to be strategically distributed by the elite of the Kinki region in this period, as suggested on bronze mirrors and jasper implements.

The paper concludes that the detailed examination of the production and distribution of comma-shaped beads can reveal the nature and character of the distribution networks which were formed in the Yayoi-Kofun transitional period and how they functioned in the centralization and hierarchisation of inter-communal relations that took place during the period.

The Meaning of Morphological Resemblance of Rock-cut Tombs between Tohoku, Kanto and Central Part of Kyushu

Yuki Iwahashi
(Kyushu University Graduate School of Social and Cultural Studies)

The subject of this presentation is rock-cut tombs which are graves constructed around the late stage and terminal stage of the Kofun period: from 6th century to 8th century. The purpose of this presentation is to clarify the background of morphological resemblance of rock-cut tombs among distant place, particularly the spread of specific type of them which specially distribute in the central part of Kyushu (= Higo type).

It has been pointed out that this type of rock-cut tombs also exists in the southeastern part of Tohoku region and the northern part of Kanto region. Several studies interpreted that such morphological resemblance among a long distance resulted from the movement or migration of people. On the other hand, however, other studies explained that it relates to the distribution of several ancient clan groups. As mentioned above, controversy still lingers over the unresolved question.

Saturday, 9 June (Afternoon)
Venue: Kyushu U. Nishijin Plaza

Title of Session:
Interfaces of Natural Scientific Approaches and Humanistic Investigations

Chair:
Hau Ling Eileen LAM (Department of Fine Arts, The Chinese University of Hong Kong)

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15:35~15:55: Yan Wu The Effects of Phytolith Morphology during Heating, Implications for Archaeological Interpretation
15:55~16:15: Minkoo Kim Bread Wheat (Triticum aestivum L.) in Ancient Korea: A Size Comparison of Carbonized Grains
16:15~16:35: Mechtild Mertz The wood species of Kubilai Khan's sunken fleet, excavated near Takashima Island, Japan

16:15~16:35

The wood species of Kubilai Khan's sunken fleet, excavated near Takashima Island, Japan

Mechtild Mertz
(Centre de recherche sur les civilizations d'Asie orientale (CRCAO), Paris)

Excavations at the coast of Takashima (鷹島), a small island located in the Imari Bay of north-western Kyûshû, brought to light the remains of the sunken fleet of Kubilai Khan (1215-1294). The Mongolian Emperor of Yuan-period China tried to invade Japan in two successive attacks, in 1274 and 1281. It was in the second attempt that his fleet sunk at the shore of Takashima Island. Strong winds struck the fleet of about 4 400 ships from China and Korea before it could land. Excavations led by the archaeologist Kenzô Hayashida, president of the Kyûshû and Okinawa Society of Underwater Archaeology were carried

out first at Tokonami (床波) harbour, located at the southern edge of the island, where ship remains were intermixed with remains from the Jômon period, then from 1994 at Kôzaki (神崎) harbour, the south-eastern shore of Takashima Island, which showed a higher concentration of recovered artifacts.

In 2005, after request by the Matsu'ura City's Board of Education, the authors had the opportunity to participate in a wood identification campaign to analyze 606 wooden remains.

The questions were, if the wooden material were from Chinese or Korean ships, which wood species were used, and what information we can deduce from knowing these species.

for characterizing the composition of elements within individual rice phytolith. Therefore, we can not simply assign all phytolith to a single melting temperature threshold.

Bread Wheat (Triticum aestivum L.) in Ancient Korea: A Size Comparison of Carbonized Grains

Minkoo Kim
(Department of Anthropology, Chonnam National University)

Bread wheat (*Triticum aestivum* L.) started to be cultivated in East Asia no later than the third millennium BC. Archaeobotanical research on carbonized wheat grains over the past decades has indicated that bread wheat of a compact form, which is called "the Ezo wheat" in Japan, was present in the Far East Asian region (the Maritime Province of Siberia, the Korean peninsula, and the Japanese archipelago) during the early stage of wheat cultivation. In response to this early observation, carbonized wheat grains from the southern part of the Korean peninsula were measured and their size was compared across the sites. The examination indicates that grains dated over the period of A.D. 200-400 were considerably smaller than the modern specimens but were plumper than the previously reported Ezo wheat. The new data sets reveal that wheat with plumper grains became prevalent across the southern region of the peninsula around the third century AD, and continued to be cultivated until the Joseon period (1392-1897) as suggested by the remains from Dodong-ri and Podu.

Morning, Sunday 10 June, 2012

Sunday, 10 June (Morning)
Venue: Graduate School

Title of Session:
Human population and social organization: interaction

Organizer:
Takeshi Ishikawa (Kyushu University)

Session Abstract
This session will attempt to examine human population and social organization from various perspectives based on the five subthemes. The subthemes relies on keywords of "kinship", "stratification", "gender", "interaction", and "technology transfer". Each paper will cover various subjects from prehistoric to modern period and various areas over the East Asia. Wide-range aspects of past human population and social organization will be shed light on by these various subjects and interdisciplinary methods.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Shinpei Hashino: Reexamining mortuary practices in the beginning of the Yayoi period: human movement and interaction
9:30~9:50: Kazunori Misaka: The Pottery Manufacturing Techniques and Cultural Change: A Study of the Japanese Archipelago in the Jomon to the Yayoi Period
9:50~10:10: Ari Tanizawa: The Yayoi-Kofun transitional period as seen from the production and distribution of comma-shaped beads
10:10~10:30: Yuki Iwahashi: The Meaning of Morphological Resemblance of Rock-cut Tombs in Tohoku, Kanto and Central Part of Kyushu

Abstracts

Reexamining mortuary practices in the beginning of the Yayoi period: human movement and interaction

Shinpei Hashino
(Kyushu University)

We can be fairly certain that rice farming originated in the southern part of the Korean peninsula in the Yayoi period of Japan. In addition to paddy-field agriculture, many other cultural traits were introduced from Korea to Japan in this period. One of these cultural traits is mortuary practices involving dolmen. The author once argued about the

origin and diffusion of dolmens and graves originating from these dolmens. Subsequently, the excavation report of some important sites was published, and some new views were submitted. Some researchers have claimed that direct interaction existed between the southern part of the Korean peninsula and the Chugoku-Shikoku region of the Japanese Islands, on the basis of the analysis of the mortuary practices distributed across these regions. However, the author do not share these views since these views have some problems in explaining the relationship between the chronology of material culture of Korea and that of Japan, and in their methods for recognizing the existence of interaction between Korea and Japan. The purpose of this paper is to reexamine how dolmens and graves originating from these dolmens spread across the Japanese Islands and were accepted in each area of the initial and early Yayoi period. This is done by analyzing the attributes of mortuary practices, pottery in cemetery sites, location of these sites, and relationship between these archaeological remainders and the features of human bones recovered from cemetery sites, which will be used to further explore human movement and cultural transmission and acceptance behind these phenomena.

The Pottery Manufacturing Techniques and Cultural Change: A Study of the Japanese Archipelago in the Jomon to the Yayoi Period.

Kazunori Misaka
(Kyushu University)

For the result of the archaeological and physical anthropological studies, it is clear that the cultural change from the Jomon to the Yayoi period in the Japanese Archipelago was caused by the immigration from the southern part of Korean peninsula in the Late Bronze Age with their cultural elements, such as paddy rice farming, a grave, a dwelling, arms, tools, and potteries. This is a part of the process that agriculture which appeared at the Chinese Neolithic Age was diffused into peripheral hunter-gathering societies in East Asia.

However, the evaluation to the cultural change is differs for researchers. This is due to unclearness of the process of the cultural change. In order to solve this problem, we focused on the pottery manufacturing techniques and the pottery style. Some of the pottery manufacturing techniques, such as method of surface treatment, adding clay stripes and firing, cannot be copied only by looking at finished goods. So we can read the trace of the contact between different cultural groups, such as immigration. In addition, it is possible to reconstruct the process of cultural change by analyzing the frequency of native and foreign elements.

According to recent studies, there is a strong possibility that origin of immigrants ware Yeung-Nam area. Therefore we clarify the difference of the pottery manufacturing techniques and the pottery style between the northern Kyushu in the Latest Jomon period and Yeung-Nam area in the Late Bronze Age. Then, after providing the division of time and space based on archaeological chronology and geographical feature in the northern Kyushu, we analyze the frequency of the foreign and the native elements of pottery manufacturing techniques and change of the pottery style. Through the result of

the analysis, we discuss the process of the cultural change in detail.

The Yayoi-Kofun transitional period as seen from the production and distribution of comma-shaped beads

Ari Tanizawa
(Kyushu-university)

This paper examines the transformation of exchange systems in the Japanese archipelago from the late Yayoi period to the early Kofun period by focusing on the production and distribution of comma-shaped beads. This time period witnessed the formation of dense interaction and exchange networks covering western Japan and parts of eastern Japan, in which the Kinki region became the centre. The distribution pattern of comma-shaped beads and its change appears to well reflect this process.

By examining the distribution pattern of beads from the Late Yayoi to the Early Kofun period, this paper has revealed the following: 1) in the late Yayoi period, beads were produced in multiple areas far away from one another and exchanged through distinct networks in which they were separately involved: 2) this pattern of production and distribution significantly changed in the early Kofun period: 3) in the early Kofun period, comma-shaped beads became unified in terms of the raw material and shape, and their distribution became centered around the Kinki region; the number of the finds and the size declined as one went away from the region. This suggests that comma-shaped beads began to be strategically distributed by the elite of the Kinki region in this period, as suggested on bronze mirrors and jasper implements.

The paper concludes that the detailed examination of the production and distribution of comma-shaped beads can reveal the nature and character of the distribution networks which were formed in the Yayoi-Kofun transitional period and how they functioned in the centralization and hierarchisation of inter-communal relations that took place during the period.

The Meaning of Morphological Resemblance of Rock-cut Tombs between Tohoku, Kanto and Central Part of Kyushu

Yuki Iwahashi
(Kyushu University Graduate School of Social and Cultural Studies)

The subject of this presentation is rock-cut tombs which are graves constructed around the late stage and terminal stage of the Kofun period: from 6th century to 8th century. The purpose of this presentation is to clarify the background of morphological resemblance of rock-cut tombs among distant place, particularly the spread of specific type of them which specially distribute in the central part of Kyushu (= Higo type).

It has been pointed out that this type of rock-cut tombs also exists in the southeastern part of Tohoku region and the northern part of Kanto region. Several studies interpreted that such morphological resemblance among a long distance resulted from the movement or migration of people. On the other hand, however, other studies explained that it relates to the distribution of several ancient clan groups. As mentioned above, controversy still lingers over the unresolved question.

Therefore, this presentation attempts to show which explanation for the phenomenon is valid by means of detailed comparison of the form of rock-cut tombs or grave goods among three regions.

Sunday, 10 June (Morning)
Venue: Museum

Title of Session:
Archaeologies of South-East Asia and beyond

Chair:
Sergey Lapteff (MIHO MUSEUM)

Timetable
9:00~9:10: Session introduction
9:10~9:30: Kaoru UEDA The trade networks of kendi jugs in Java, Indonesia: A petrographic study on fine paste wares excavated from Banten Lama
9:30~9:50: Sergey Lapteff Late Bronze - Early Iron Age Burial Practices and Sacrifice Rituals in South-East Asia comparing them to same period societies of East Asia - paradigma of development
9:50~10:10: Marie Grace Pamela Faylona, *et al* Archaeomalacology prospective in Ilin Island, Southwest Mindoro, Philippines
10:10~10:30: Nang Chung Trinh A study on the Bronze Dongson drums were found Kwangxi Province, China
10:30~10:45 Tea & Coffee
10:45~11:05: TSUO TING LEE Advanced study of prehistoric rice grain cultivation in southwestern Taiwan based on phytolith evidence
11:05~12:30: Discussion

Abstracts

The trade networks of kendi jugs in Java, Indonesia: A petrographic study on fine paste wares excavated from Banten Lama

Kaoru Ueda
(Boston University)

This paper discusses the preliminary result of the first petrographic analysis conducted on the earthenwares excavated from a historical site in Indonesia. The thin-section analysis conducted on fine paste *kendi* wares from Surosowan Palace, Banten Lama, Indonesia, underscores marked differences in their petrographic characteristics from utilitarian earthenwares produced at local workshops. Historically, *kendi* jugs are often

associated with ritual ceremonies and prestige values in Southeast Asia, and are considered to have been traded on a regional scale (Miksic and Yap 1990). Combined with the result of experimental archaeology conducted on pottery made using the locally available clay, this study supports the hypothesis that the *kendi* wares were imported or produced with imported clay and tempering materials. The results of this petrographic study indicate a complex picture of maritime trade in Southeast Asia, which in turn requires further study and consideration to understand the trade networks in East Asia in their entirety.

Late Bronze - Early Iron Age Burial Practices and Sacrifice Rituals in South-East Asia comparing them to same period societies of East Asia - paradigma of development

Sergey Lapteff (MIHO MUSEUM)

In this paper the author discusess the problem of burial practices and rituals in late Bronze-Early Iron age societies in Indochina (Cambodia, Laos), in comparence with Japan, Korea, Russian Far East. A special attention is payed towards megalithic monuments and bovinae sacrificies. Author supports the idea that the rice-farming societies in East and South-East Asia had a similar way of development with undoubtful local peculiarities caused by ethnicity and religious beliefs.

Archaeomalacology prospective in Ilin Island, Southwest Mindoro, Philippines

Marie Grace Pamela G. Faylona[1], Armand Salvador Mijares[2], Alfred Pawlik[2], Phil Piper[3] and Martine Porr [4]

[1] Archaeology Division, National Museum of the Philippines
[2] Archaeological Studies Program, University of the Philippines, Diliman
[3] School of Archaeology and Anthropology, Australian National University
[4] Archaeology, School of Social and Cultural Studies, University of Western Australia

Ilin Island, located at the Southwest Mindoro, greatly exhibited archaeological potential when several cave and rock shelters were discovered during investigative phases of Mindoro Archaeological Research Program in 2010-2011. This is an on-going study initiated by the Archaeological Studies Program, University of the Philippines in collaboration with the University of Western Australia, supported by the National Museum of the Philippines. More than five caves and rock shelters were investigated in the island and most of the sites produced evidence of past human activities.

Two of the archaeological sites namely, Bubog I and Bubog II, were featured in this paper. Both sites are position at the southeastern end of the island. These two sites revealed a more than a meter depth of stratified shell midden, mostly medium to large marine mollusks, without presence of pottery. Associated with the shells were several used pebbles and their fragments, mostly made of igneous rocks and few lithic flakes.

Examining shell assemblages in the midden divulge potential studies for

archaeomalacology. Results may be correlated to lithic typology, worked shell analysis, prehistoric subsistence strategy and paleoenvironmental reconstruction studies of late Pleistocene to Early Holocene period. Moreover, the identified potential studies on shell assemblages of Ilin significantly contribute to the prehistory of Mindoro and convey to the Pacific Island Theory discourse.

A study on the Bronze Dongson drums were found Kwangxi Province, China

Nang Chung Trinh (Institute of Archaeology of Viet Nam)

In this paper, the author want to compare study the Shizaishan drums of Guangxi with Dong Son drums of North Viet Nam. In general, Dong Son drums are similar Shizai shan on shape, but different on decoration. The Shizaishan drums were found in cemeteries in Kwangxi such as:

- 4 drums were excavated in tomb Pu Tuo, Xi Lin district
- 3 drums were found in tomb Luobowan, Gui district
- 1 drums were found Wa Gai Lin, Tian Dong district
- 1 drums were found Gui district

Dong Son drums were found in both Guang Xi and North Viet Nam are similar and confirms strongly that, in the prehistoric times, there were internal contacts and exchanges between the Luo Yue groups of North Viet Nam and the ancient Luo Yue groups of GuangXi. Cultural exchanges between the two areas is two-way exchanges. Perhaps, the exchange between two regional is done via sea and a river connecting two areas as You Jiang river.

Advanced study of prehistoric rice grain cultivation in southwestern Taiwan based on phytolith evidence

Tsuo Ting Lee (Post-doctoral fellow, National Science Council)

For years, plenty carbonized rice grains have unearthed from archaeological sites around southwestern Taiwan. Unfortunately, little information about them can be learned to the development detail of prehistory rice grains cultivation. This research project is intended to explore more about the changing of prehistoric rice agriculture in ancient Taiwan based on the phytolith analysis.

Sunday, 10 June (Morning)
Venue: Community Center

Title of Session:
How did People and Social Organization Change? : Some Aspects of Manufacture from the Prehistoric to the Medieval China.

Organizers:

KIKUCHI HIROKI(菊地大樹) (Nara National Research Institute for Cultural Properties),
MUKAI YUSUKE（向井祐介）(Institute for Research in Humanities, Kyoto University)
TOKUDOME DAISUKE（徳留大輔）(HAGI URAGAMI MUSEUM) &
ZHANG HUA（張樺） (Simon Fraser University)

Session Abstract

Manufacture is one of the effective subjects to clarify the labor, production and subsistence in the past society. In this session, during the prehistory to the medieval times in China, it is focused on the development of some technology and the distribution of some product items. For example, production of pottery, jade, bronze implements and roof tiles. Then, it argues how/ what did people in connection with manufacture or the group/ social integrate system change.

Timetable

9:00~9:15: Session Introduction: TOKUDOME Daisuke
9:15~9:30: KOYANAGI Yoshiki: Jade Objects of the Chinese Early Dynasty from Yanzi River Culture
9:30~9:45: CHANG Huaiying: The inventory of production tools represents regional variations during the Xia/Shang periods in the Region of the Ji State
9:45~10:00: KAKUDO Ryosuke: The Production and Significance of Ritual Bronzes in Shang and Western Zhou Periods
10:00~10:15: NIWA Takafumi: A production system of Bronze vessels in Eastern Zhou period,China
10:15~10:30: TOKUDOME Daisuke: What is meant by the changes of some kilns structure from the Neolithic period to the Han dynasty?
10:30~10:45 Tea & Coffee
10:45~11:00: UENO Yoshifum: Manufacture in Han Dynasty with Lacquer Wears and Bronze Mirrors
11:00~11:15: MUKAI Yusuke: Roof-tile Production System in Ancient and Medieval China
11:15~11:30: ICHIMOTO Rui: Production of Pottery figurines and its social system in the Wei, Jin, and the North-South Dynasties
11:30~11:45: KIKUCHI Hiroki: Zooarchaeological research of horse production system in the Pre-Qin Age, China
11:45~12:00: ZHANG Hua: Dental Indication of Health and Stress of the Late Shang People in Anyang, China
12:00~12:30: Comments and discussion : (CHEN Xingcan and MIYAMOTO Kazuo)

Abstracts

Jade Objects of the Chinese Early Dynasty from Yanzi River Culture

Koyanagi Yoshiki
(Cyber University)

Chinese early dynasty is the phase dating from the later Neolithic to the early Bronze age. In this period, several objects and elements of cultures from some regions gathered in the center of China 中原,so early dynasty area. Yanzi River Cultures occupied an important position at that time.

Liangzhu 良渚 culture of late Neolithic in the lower Yangzi River, jade objects had been used as a tool of social composition. Especially jade cong 琮 were tool of distribution system in the center of Laingzhu site group and the periphery regions of Liangzhu culture. In late Liangzhu culture, cong changed to large and simple patterns. this evidence had continued at later periods.

After Liangzhu culture in the rower Yangzi River, production of jade objects decreased and several objects from Yellow River cultures increased.
Now so, we start afresh to discuss Liangzhu culture had a significant impact on Chinese early dynasty period.
The Shijiahe 石家河 Neolithic Culture is in the middle Yangzi River. Jade of the Shijiahe had been found at sites in cultural regions of Yellow River and of later periods-Bronze age. This background formed by relationship between the middle Yellow River cultures and Yellow River Cultures.
Especially, Qujialing 屈家嶺 cultures style potteries, for brewing potteries set and unearthed at the Yellow River Culture regions. We recognized the spreading evidence of rice cultivation for North area. On this basis of relationship, jade objects of Shijiahe culture had been continuously used in the center of China.

The inventory of production tools represents regional variations during the Xia/Shang periods in the Region of the Ji State

Chang Huai Ying
(Institute of Archaeology, Chinese Academy of Social Sciences)

This dissertation suggests that the inventory of production tools represents regional variations during the Xia/Shang periods in this region. Furthermore, only in capital settlements "industrial-like" distribution of production tools reflected on the yielding contexts can be observable which stands in stark contrast to the lacking of such patterns in commoner's settlements. Different types of non-vessel artifacts are varied in capital settlements. The ratio of agricultural tools from capitals is relatively lower than other tools and reflects a situation that the economic pattern in capitals belonged to the "consuming economy" rather than the "producing economy" for agricultural production which is dominated in agricultural societies. Bronze tools in capital settlements are much higher than that in rural areas in terms of their quantities. This phenomenon

represents a fact that capital settlements were economically and technologically advanced. The scale and structures of economic industries in different areas are quite different during the Xia/Shang period but agricultural production dominated other industries in all regions. In conjunction with faunal and botanic remains, this dissertation proposes that agriculture was the major economic industry in the Ji state and supplemented by animal herding, hunting and fishing. Part of the agricultural, textile industrial and life-stocking rising products might have been exported to other regions. Nevertheless, pastoral-nomadic economics did not appear in the Ji state during the Xia/Shang periods.

The Production and Significance of Ritual Bronzes in Shang and Western Zhou Periods

Kakudo Ryosuke
(Komazawa University)

The manufacturing industry during the Shang and Western Zhou periods is characterized by their ritual bronze vessels with highly complicated techniques and various patterns. It seems that these bronzes were mainly used at ancestral temple, the locus of king's and vassals' ancestral cult. Although the essence of ritual bronze vessels had not changed throughout Shang and Zhou Dynasties, their practical role had gradually changed, and it was not irrelevant to the change of manufacturing system. This paper discusses the transition of bronze ware manufacturing in Shang and Zhou periods by investigating both ritual bronze vessels themselves and their inscriptions. Bronze vessels had a deep connection with royal powers. In order to understand the state structure, it is important to clarify their manufacturing system.

A production system of Bronze vessels in Eastern Zhou period,China

Niwa Takafumi
(Nara National Reseach Institute for Cultural Properties)

Bronze vessels were used by ritual and ceremony in Eastern Zhou period, China, so the author regards a production system of Bronze vessels closely related with the changes of human and social organization. This paper, based on analysis of some attributes related with manufacturing process, discusses with similarity and difference of production technologies and systems among many areas in China, and considers how did people with production and distribution changed in Eastern Zhou period.

What is meant by the changes of some kilns structure from the Neolithic period to the Han dynasty?

Tokudome Daisuke
(HAGI URAGAMI MUSEUM)

This paper examines the structure and distribution pattern of kilns which used to fire pottery or roof tile etc., from the Neolithic period to the Han dynasty. The succession of building kilns technique is more difficult to imitate some pottery and needs to have organized craftsmanship if it is preserved.

First, the author classified kilns in three types based on the structure. They are classified as, up-draught kiln (昇焔式), half reverse fire kiln (半倒焔式) and Dragon kiln（竜窯）.

Next, the author examined the changes and distribution pattern of each type of kiln. And it is understood that there were two big change times on the basis of the relative dating. First, the structure of kilns was changed over from up-draught kiln to half reverse fire kiln in the Western Zhou period. It's indicated to improve thermal efficiency. Secondly, the scale of the firing chamber was bigger than before, firing more large-quantities of pottery or roof tile at once. In addition, a large number of kilns were placed in a specific area. This indicates the demand of pottery and roof tile manufacturing had increased and developed a commercial economy. Besides, it was assumed that pottery and roof tile manufacturing was more controlled by the government, because the distribution and employment of this mainly was court or palace, especially in the case of roof tile.

The author concludes that there was different craftsmanship organization between the Zhou dynasty and the Warring States period. Before the Warring States period, the government mainly had been controlled to bronze and jade manufacturing for some ceremony or prestige goods. Even pottery and roof tile were controlled and organized by the government in the Warring States period.

Manufacture in Han Dynasty with Lacquer Wears and Bronze Mirrors

Ueno Yoshifumi
(National Museum of Japanese History)

Han Dynasty is symbolized as the combination of ancient Chinese world, but as the beginning stage to medieval age. Through these 400 years, social organization as governing systems or interaction of local regions was changed.

Lacquer wears and bronze wears of Han Dynasty style often have such inscription of manufacture as place of factory, masters of their production and the process of them. Shang-Fang (尚方) and Shu-Jun Si-Gong (蜀郡西工) are the famous names of the royal factory inscribed on lacquer wears. Bai-Shi (柏氏) who belonged to Wu-Jun (呉郡) district, Long-Shi (龍氏) and Liu-Shi (劉氏) are famous family names of masters inscribed on bronze mirrors. Comparing typological analyses of them with such inscription of manufacture, it is possible for us to describe so various phase of their production in detail. They are most useful materials to study the change of society with the viewpoint of "production". In Eastern Han Dynasty period, the inscription of lacquer wears was changed with the change of production at the factory controlled by royal government. On the other, the family names of master of production appeared on the inscription of bronze mirrors.

This paper focuses on such phenomenon in Eastern Han Dynasty period that the manufacture system of lacquer wears and bronze mirrors has been changed, considers the change of social organization with it for approaching the session theme.

Roof-tile Production System in Ancient and Medieval China

Mukai Yusuke
(Institute for Research in Humanities, Kyoto University)

This paper is intended to examine the roof-tile production system before the Tang dynasty in China through some analyses of tiles with incised or impressed characters. In ancient China, a great number of people were commandeered for public construction and manufacturing works. Roof-tiles with impressed characters unearthed from the Qin capital Xianyang and the West Han capital Chang'an suggest that the greater part of the craftsmen were the convicted prisoner put into government prisons. A part of characters impressed on roof-tiles from the Eastern Han capital Luoyang indicate that their craftsmen were commandeered for military service, and army groups were important working force at that time. In the Wei dynasty of the three kingdoms, chiefs or leaders of craftsmen impressed their own seals on their products for the purpose of inspection. In the northern dynasties, the craftsmen incised or impressed their own name with the aim of quality control. Through these analyses of roof-tile production, I clarified that employment status of craftsmen engaged in construction for government can be classified into four types: first is the government artisans played leading roles in the group of workers, the second type is the convicted prisoner, the third type is the people imposed work service from government, the fourth type is the people commandeered for military service.

Production of Pottery figurines and its social system in the Wei, Jin, and the North-South Dynasties

Ichimoto Rui
(Kyushu National Museum)

Pottery figurines are the most important burial goods for noble tomb. Therefore, change of constitutional society or regime has direct influence on the form and style of pottery figurines.

In this presentation, I will try showcasing the relation between the two in the period. I will focus on three steps, i.e., founding of the country, transfer of the capital, and division of the Northern Wei Dynasty.

Imperial family of the Northern Wei did not have custom of burying pottery figurines in the early era. It started expressing their own culture using pottery figurines after they unified all Northen China, contacting through these political powerhouse. Particularly, it suggests direct relations with the After Qin dynasty in Shaanxi Province, including the transfer of production personnel.

When the Northern Wei Dynasty moved the capital to Luoyang, they employed new craftsmen in the new capital, and developed a new production. It was a bold renovation by the Emperor Xiaowen.

When the Northern Wei Dynasty was disrupted by east and west, the Eastern Wei Dynasty and Northern Qi Dynasty inherited the form of production. When the Sui Dynasty was built, they inherited the pottery figurines production by Northern Qi dynasty, although the Sui imperial family affined the Northern Zhou dynasty. In my opinion, it is considered that the pottery-industry in Northern Qi Dynasty was far advanced than Northern Zhou Dynasty.

In this period, pottery figurines and Buddhist image had a common style. I speculate that their productions were closely related. Pottery figurines has plentiful information in order to understand the constitution of society in this period. It has a significant role in research on history.

Zooarchaeological research of horse production system in the Pre-Qin Age, China

Kikuchi Hiroki
(Nara National Research Institute for Cultural Properties)

This study examines the horse production system during the Pre-Qin Age in China through zooarchaeological research of horse remains from excavated archaeological sites. The utilization of horse started from Late Shang (14th-11th century B.C.) and later expanded to the Yellow River during Western Zhou (11th-770 B.C.) and Eastern Zhou (770-476 B.C.). Results of the zooarchaeological analysis make clear that the changing patterns of age and size show a difference between chariot pit and sacrificial pit in the Pre-Qin Age. A young and brawny horse was always chosen for draw a chariot. However, a younger or even a foal was always chosen for sacrifice without chariots. Moreover, foals appear in the Warring States period as a sacrifice. At first, middle-aged and colt horses were buried. However, the Spring and Autumn period was a turning point when the horse burials included colts, and after that more foals were sacrificed comparing with the previous period. The number of horses scarified together at the same time considerably increased. It is inferred that the stable horse breeding organization began to be established in the Pre-Qin Age.

Dental Indication of Health and Stress of the Late Shang People in Anyang, China

Zhang Hua
(Simon Fraser University)

This present study examines the dental indicators of health and stress (dental wear, chipping, caries, antemortem tooth loss, and abscesses) on 111 skeletal human remains from two recently excavated archaeological sites in Anyang city where located the last Shang capital, Yin (ca. 1200 - 1050 B.C.). Instead of seeing this period of time as a whole as the pioneer researches were done, we introduced the concept of "phases" from

the material culture into this study and paid special attentions on the relative prevalence of dental health of once-living population in the early and late phases of Yin-Shang Period to detect the dynamic life history of the past Shang people. Results from this comparison indicate significant severity of dental wear and chipping on people of late phase, however, more dental caries were suffered by people from early phase. Although the patterns of abscesses and antemortem tooth loss are not clear enough to show any significant differences at this stage, the overall dental health may be attributed to the changes in food or occupational practices and the pressure of adulthood taking place during the time of increasing urbanization.

Sunday, 10 June (Morning)
Venue: Kyushu U. Nishijin Plaza

Title of Session:
East Asian Archaeological Collections in European Museums

Organizer:
Sascha Priewe (Department of Asia, The British Museum) &
Luisa Mengoni (Asian Department, Victoria and Albert Museum)

Session Abstract
Most European museums with collections of East Asian works of art also hold rich collections in archaeological objects from this region. Knowledge about these collections is differential. While the Central Asian collections have achieved a high pedigree and wide dissemination through publications and exhibitions, the archaeological nature of some of the Chinese, Japanese and Korean materials is less well-known. This panel tries to rectify this shortcoming by introducing to a wider audience these materials, thereby also illuminating the politics of exploration, collecting and fieldwork during early 20th century when most of these collections were formed.

Timetable
9:00~9:10: Session introduction
9:10~9:30: Simon Kaner: Collections of Japanese antiquities in London and Edinburgh: the Gowland and Munro Collections
9:30~9:50: Ilona Bausch: An introduction into the East Asian Collections at Leiden, the Netherlands
9:50~10:10: Youngchan Oh: William Gowland's Korean Collection at the British Museum
10:10~10:30: Charlotte Horlyck: Unearthing and Collecting Korea's Past (1880-1940)
10:30~10:45 Tea & Coffee
10:45~11:05: Magnus Fiskesjo: Asian Archaeology as part of Sweden's "World Culture" museums: A new look
11:05~11:25: Luisa Mengoni: The formation of the Chinese archaeological collection

at the Victoria and Albert Museum
11:25~11:45: Valerie Jurgens: The Karlbeck Collection at the British Museum
11:45~12:05: Sascha Priewe: An Unusual Exchange of Archaeological Objects between China and Britain
12:05~12:30: Discussion

Abstracts

Collections of Japanese antiquities in London and Edinburgh: the Gowland and Munro Collections

Simon Kaner
(Sainsbury Institute for the Study of Japanese Arts and Cultures and University of East Anglia)

Many European museums contain collections of archaeological materials from East Asia (China, Korea and Japan). These collections, many of which include donations and acquisitions made during the 19th and early 20th centuries, are tangible evidence for a network of academic and other cultural contacts between East Asia and Europe at the time when the modern discipline of archaeology was being established in both regions. In addition, many of these collections are complemented by archive materials that attest to contacts between museums and academics at the time of acquisition. These collections and their associated archives are of great significance for understanding the formation of an awareness of the past in cultural encounters. They hold clues as to the ways in which people outside Europe perceived the past, and how Europeans set their own pasts in a global context. They are moreover important for understanding how archaeology as a discipline formed out of a global network of ideas and encounters. This paper examines two rich specific collections of Japanese antiquities in UK museums, those assembled by William Gowland and Neil Gordon Munro, and will consider them in the light of the AREA Project investigating the archives of European archaeology (http://www.area-archives.org), and also to research being undertaken in, for example, Japan, where collections of European antiquities found their way into early Japanese collections, and in the context of the following research questions:

* What role have objects from antiquity played in cultural encounters between Europe and East Asia;
* How have antiquities from East Asia informed the development of the discipline of archaeology in Europe, and hence the formation of a sense of European historical consciousness in a global setting;
* What kind of networks existed between collectors, academics and institutions in Europe and East Asia and how did this relate to the cultural, political and economic contexts in which the discipline of archaeology was born;
* How are collections of East Asian antiquities perceived and used in contemporary Europe to shape current and future cultural encounters?

An introduction into the East Asian Collections at Leiden, the Netherlands

Ilona Bausch
(Leiden University)

This paper will provide a preliminary insight into the Asian archaeological collections that are presently kept in the storage at the National Museum of Ethnology and the Sieboldhuis at Leiden, the Netherlands. Special attention will be paid to the Japanese archaeological materials—a part of the Leiden collection that has received very little attention so far. A large part of the Japan collection at Leiden was acquired in the first half of the 19th century on behalf of the Dutch state by Philipp Franz Von Siebold (1796-1866) and his contemporaries; the purpose of these (largely ethnographic) collections was to educate the Dutch people about Japan and its unique trade relationship with the Netherlands. What kind of *archaeological* materials do these collections encompass, and do these reflect (changes in) collecting interests?

William Gowland's Korean Collection at the British Museum

Youngchan Oh
(National Museum of Korea)

The British Museum's collection of Korean archaeology, acquired in the late 19th century, was one of the first of its kind. Mainly consisting of pottery objects used in funerals and found in early Korean tombs, many of these pieces were collected by William Gowland (1842-1922), a British mining consultant who worked in Japan.
It is note worthy that these early ceramic specimens were collected by a Westerner and acquired by a Western museum at a time when the modern discipline of archaeology had not yet been introduced to Korea.

The Gowland collection at the British Museum consists of some three hundred Japanese and about fifty Korean artifacts. Most of the Korean items were purchased by Sir A. W. Franks (1826-1897), then Keeper of Antiquities at the British Museum, from Gowland and donated to the Museum in 1889.

Gowland's Korean collections were collected on at least three separate occasions, but the majority was collected during his trip to Korea in 1884. As mentioned, he was interested in researching the connections between the cultures of Korea and Japan, more specifically, he was looking for pottery that was similar to the sueki type of pottery found in Japanese Kofun tombs. His Korean collection mainly contained ancient Korean pottery of a type similar to Japanese sueki pottery. Supporting his initial assumption, it has been proven by later researchers that sueki pottery of the Kofun period in Japan was directly influenced by the pottery of the Three Kingdoms period (57BC-668AD) in Korea.

Unearthing and Collecting Korea's Past (1880-1940)

Charlotte Horlyck
(Dept of History of Art and Archaeology, SOAS, University of London)

When the Choson Kingdom (AD1392-1910) was forced to open its ports in 1876, it brought about huge and irreversible changes to the Korean peninsula. Until then little was known about the 'Hermit Kingdom' but following the establishment of commercial and diplomatic ties with foreign powers, attention was directed at Korea, including its hitherto unknown cultural legacies. Over the course of the late 19th and early 20th century, important archaeological sites on the peninsula were discovered, identified and surveyed, and the finds were exhibited within the newly established public museums. Not only did this generate significant local interest in Korea's past history and culture but it also resulted in increasing awareness of its archaeological heritage among Westerners.

It was especially celadon stonewares of the Koryo period (AD918-1392) that appealed to Western and Japanese collectors. They began to be found in the late 19th century, but many were unearthed during the early 20th century often as a result of the large-scale development of roads and railways initiated by the Japanese. This coincided with the rife looting of Koryo graves and it is an uncomfortable truth that many celadon wares and other artifacts from this period now on display in museums around the world are likely to have originated from such plundering sprees. Since their first discoveries, extensive studies of Koryo celadon have been carried out by Japanese, Korean and Western scholars, but little continues to be known of the sites from where they originally came. Focusing on collections of Korean art in the UK and drawing on records from the late 19th century and the colonial period as well as recently published material, this paper explores how celadon wares and other artefacts from the Koryo period were initially found and collected, a topic which continues to be shrouded in rumors and accusations.

Asian Archaeology as part of Sweden's "World Culture" museums: A new look

Magnus Fiskesjo
(Cornell University)

In this paper I review the history of the Museum of Far Eastern Antiquities (MFEA) in Stockholm, Sweden. This will include its founding in 1921, based on the first Neolithic archaeological materials systematically excavated in China, by Johan Gunnar Andersson (1874-1960) and his Chinese colleagues, mainly in the period 1920-23. I also briefly review how Andersson brought the collections to Sweden; their relations to other existing institutions; and how the museum was later (in the 1930s-80s) transformed from the archaeological research centre envisioned by Andersson to a fine-arts museum in which the original collections, as well as Andersson, came to be marginalized. I also discuss the role of these collections today, within the state-owned group of museums somewhat anachronistically called Sweden's "National Museums of World

Culture,"where they belong since 1999. I offer a brief review of the reconstitution of the archaeological collections and the new permanent exhibits created under my own leadership while MFEA director in 2000-05, and the museum's continued development since that time. Based on these historical aspects, I also offer a discussion of the debate over the legitimacy of the Andersson and MFEA collections that has been kindled by, on the one hand, Chinese repatriation activists with radically different approaches to Neolithic antiquities from China, and on the other hand, scholarly critics such as Perry Johansson in his recent book, *Saluting the Yellow Emperor,* which seeks to broadly criticize Andersson's pioneer work as an archaeologist of China.

The formation of the Chinese archaeological collection at the Victoria and Albert Museum

Luisa Mengoni
(Asian Department, Victoria and Albert Museum)

Archaeological objects represent only a small part of the entire collection of Chinese art held at the Victoria and Albert Museum, London. Yet, the acquisition of archaeological material dated from the Neolithic to the Tang period, through donations from private collectors and purchases made in London mainly between 1909 and 1939, marked a dramatic change in the collecting strategies of the museum, and coincided with a time when a new taste for early Chinese art and a new understanding of China and Chinese culture were developing amongst circles of collectors and public institutions in Great Britain.

Through an overview of the Chinese archaeological collection at the Victoria and Albert Museum, this paper will reflect on the changing collecting strategies of the V&A as a public museum in the early decades of the 20th century and its relationship with the wider world of private collectors and dealers of the time, and will explore the V&A role in the display and interpretation of early Chinese art to the general public.

The Karlbeck Collection at the British Museum

Valerie Jurgens
(Researcher at the British Museum a project on the Karlbeck Collection at the BM)

History of archaeology, not merely archaeology itself, has become an important subject in contemporary scholarship. The Chinese collections at the British Museum give an interesting insight into this history. They represent the material and cultural evidence of a rich historic past but also address questions on provenance and scholarship in the field.

The Karlbeck Collection at the British museum is a group of Bronze Age objects. They predominantly represent small ornamental bronzes that date from the Shang and Zhou period. Most were acquired for the British Museum between 1931 and 1934 by the Swedish collector and railroad engineer Orvar Karlbeck ((1879-1967. During this

period the MFEA in Stockholm (founded in 1925) masterminded an unprecedented collecting campaign in order to fund new acquisitions for their collection. Selected museums and private collectors were invited to join The Karlbeck Syndicate. On behalf of this syndicate Karlbeck, who had been living in China since 1908 and a passionate collector of Chinese archaeological objects, purchased numerous bronzes and ceramics for this group.

The collection at the British Museum includes ritual bronzes, belt-hooks, horse and chariot-trappings, mirrors and Ordos bronzes. These objects were new on the art market and the purchases followed the growing trend in collecting and scholarship on early Chinese art in the West.

A number of significant private collectors joined the syndicate: Charles G. Seligman (1873-1940), Oscar Raphael (1874-1941), Henry Oppenheim (d. 1941), George Eumorfopoulos (1863-1939) and Alice Mariquita Sedgwick (1883-1967). Many of their syndicate purchases later ended up at the British Museum.

In the global culture of today the history of such collections are revisited and form an important understanding of Western collecting in a defined period. In this discussion the concept of a universal museum in its different forms is a noteworthy idea to understand the future of these collections.

An Unusual Exchange of Archaeological Objects between China and Britain

Sascha Priewe
(Department of Asia, The British Museum)

In 1959, the British Museum received a group of objects as gift from the Institute of Archaeology, then Central Academy of Science in Beijing, in exchange for European and African prehistoric stone tools and other items. The objects from China included a variety of media and types, such as pottery, stone tools and even oracle bones, from recently excavated Neolithic and Bronze Age sites. These objects have greatly enriched the British Museum's collections and allowed for a richer and more nuanced display especially on Neolithic China. This paper investigates this unusual exchange of excavated materials and the ways in which both sets of objects fit within perceptions of the relevant periods in China and Europe at the time of the exchange.

Thursday, 7 June (Afternoon)
Venue: Museum

Title of Session
China and neighbouring regions 2

Chair
Jack Alexander Davey
(University of California, Los Angeles)

14:40~15:00: Francis Allard The Han Period Tombs at Luobowan: Archaeological and Historical Perspectives

16:15~16:35: Sheahan Velma Margaret Bestel Use-wear and Residues in SE Asian archaeology

16:35~16:55: Ling-yu Hung Environment, site distribution, and pottery production of the Majiayao Culture (ca. 5300-4000 BP)

The Han Period Tombs at Luobowan: Archaeological and Historical Perspectives

Francis Allard
(Indiana University of Pennsylvania)

In the late 1970s, archaeologists excavated two rich Han period tombs at the site of Luobowan in Guangxi's Guixian County. The tombs, both pit graves with overlying earthen mounds, are believed to date to the Nanyue period (204-111 BCE), a time when a line of kings of Chinese descent is said to have ruled over much of Lingnan (present-day Guangxi and Guangdong). Importantly, a number of features point to the emulation of customs and artistic styles common in central and northern China. These include the use of entrance ramps, partitioned coffins, as well as the presence of various grave goods such as bronze, jade and lacquer vessels whose surface designs also indicate influence from Han China. In contrast, a number of features at Luobowan illustrate the maintenance of local traditions, including various ceramic vessel types, bronze pails, a bronze drum, as well as the inclusion of human sacrifices in the tombs. In its attempt to situate the Luobowan tombs within the context of recent discoveries in Lingnan dating to the Nanyue period, this paper: 1. Briefly reviews the contents and structure of the tombs; 2. Revisits the issue of 'sinicization' as it applies to the tombs' contents and structure; 3. Compares the tombs to other Nanyue period burials in Lingnan; and 4. Discusses the nature of leadership at Luobowan and of the relationship between the tomb occupants and the Nanyue rulers at the kingdom's capital in Panyu (present-day Guangzhou).

Use-wear and Residues in SE Asian archaeology

Sheahan Velma Margaret Bestel
(Stanford University)

The study of use-wear is the study of ancient wear traces microscopically evident on ancient artefacts such as pottery, stone or lithic tools, and teeth. The allied study of residues uses microscopy to examine tiny fragments of plant, animal and other remains on artefacts. Research applying these relatively recent techniques has led to a clearer understanding of the uses of ancient artefacts. Our understanding of past human behaviours has also been enhanced by studies such as the analysis of early agricultural (Peiligang) period grinding implements in China (Liu et al. 2010). These have emphasized the importance of acorns as well as beans, yams, and cereals in the diet of early agricultural people at sites such as Egou and Shigu in Henan Province, China.

Environment, site distribution, and pottery production of the Majiayao Culture (ca. 5300-4000 BP)

Ling-yu Hung
(Dept. of Anthropology, Indiana University)

This paper investigates the relationship between environment, site distribution, and pottery production during the Neolithic Majiayao Culture period (ca. 5300–4000 BP) in northwestern China. The current survey data show that almost all the large Majiayao sites were clustered in central Gansu. Many Majiayao sites were also distributed in northeastern Qinghai, but none of these sites had an area comparable to those large sites mainly found in central Gansu. Meanwhile, new evidence indicates that some elegant painted pottery vessels made in central Gansu were exported to northeastern Qinghai through time. At the periphery of Majiayao geographic range, a group of large sites appeared in the Hexi Corridor during the middle and late phases of the Majiayao Cultural period. However, painted pottery production was less intensified in the Hexi Corridor than in central Gansu and northeastern Qinghai. Whether these large sites were associated with early Eurasian interactions is an interesting question for future study.

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How to use the Index:

You can know where you find someone else's abstract, when s/he is giving the paper, and where, in the INDEX.

Each entry indicates the following (also see p.xi above):

Second Name, First Name p(age in this booklet), M(orning)/A(fternoon), Venue*

*Venue Name abbreviation

Graduate School ('A' in Map (p. iii)): GS
Museum (B): M
Community Centre (C): CC
Kyushu University Nishijin Plaza (D): NP

So if you want to listen to Ambiru MASAO, you can find his ABSTRACT on page 76, and you will go to Community Centre in the MORNING, on 9th June, for instance.

(Many thanks for Professor Masao AMBIRU of Meiji University for appearing as an example!)

- June - July.
- SEAA meeting.
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