Title: "A Comparative Study on Jade Making and Using in prehistory of Vietnam and Japan"

Introduction: The project of studying on jade making and using in prehistory of Vietnam and japan have been carried out from mid 2007 until late 2008. Beside the report (inVietnamese) contained 56 pages, including tables, photos, figures..., a paper concerning to this topic of the research have been presented in the annual conference of Vietnam Archaeology, September, 2008 in Hanoi. Other documentation will be presented in the next international conference of IPPA (Indo – Pacific Prehistoric Association), Hanoi, November, 2009.

The comparative study on jade making and using have been focussed and most concentrated in technology of jade making, particularly of the workshops to product jade objects in Japan and Vietnam . The aim of this research is to determine the manufacturing techniques including polishing, cutting, drilling and the maner of using Jade in the ancient societies in Japan and Vietnam. The researchers have been travelled to many museums and archaeological sites in Vietnam and Japan, to analyse the collections of jade objects and to understand the technological evidences, which still have been maintained on the sufface of archaeological objects. These collections found in many archaeological sites and they played very important role to research on manufacturing technology. On the other hand, this research also tried to compare the evidences of jade manufacturing bettween Japan and Vietnam, to understand the similarities and the differences in jade technique of two ancient societies.

In general, jade is a term used to call two kinds of precious stone, distributed as mines or other condition in the earth. Jade is popular in Vietnam, China, Taiwan and Jadiete used widely in Japan, Korea, Myama..). In the prehistory of East Asian countries, there is a significant feature that the ancient people were all involved in using precious stone for decorating. Most earrings, bracelets, beads have been found from even very early of neolithic to the iron age (10.000 years to 2000 years BP) in the erea were producted by Jade. Vietnam and Japan prehistory both had traditions of particular, independent formation and development and also comprised the similarity of East Asian features.

Research: In Japan, the tradition of jade manufacture have been started from very early Neolithic Age. Two jade slit rings found in both side of the head of a human skeleton, belongs to very early Jomon period from KOU site, Koyu, Osaka. The site excavated in 1918 with 3 burials. Three skulls found associated with a pair of jade slit rings indicated that Jade objects have been manuafactured and used very popular in prehistorical time of Japan. These collection now displays in Kan Sai University Museum. Acording to Japanese Archaeologists, this type of earring belongs to KITASHIRAKAWA KASO TYPE (IIb type). The collection of jade beads and the collection of unfinished beads from Soga site (Kofun period) are all Jadiete. In the past, Jadiete were explorated from IZAMO, Kashihara erea. There are many evidences indicated that the technology of bead making in this erea including cutting by string, chipping with supported by wood tools, perforating and polishing in the end of the manuafacture process showing that the people in Kofun period have probably used metal tools for driling?

From Japan prehistorical period, there were lot of assemblages of jade artifacts, jade making tools, jade wasted objects. Through the very interesting publication edited by Professor Kobayashi,T (2006) names: Kodai hisui bunka no nazo wo saguru (means: Solving a mystery of the ancient jade culture", the researches learned a scientific matter that, in fact, jade can be brought so far distance, from Itoigawa to Hokkaido. The famous source of jade in Toyama Prefecture, Itoigawa region, where Professor Fujio Fujita had very good research on the workshop of jade making. The collection from Gokurakuji workshop site (Toyama Prefecture) is place where both jadiete beads and

slit rings were manufactured. In Omachi – City, the site Meinuhara is also belonged to early Jomon. Many Jomon bead and ring workshop sites found in the large erea of Nagano Prefecture.

In Nagano Prefecture, the meeting with Dr. KAWASAKI Tamotsu giving a oppertunity to analyse the collection of the workshop site Yabusawa, early Jomon (5000 BP). The most interesting problem found in these collections is lot of making trace indicated that the technique of cutting in these workshop were string cutting, not sawing cutting.

In the north of Japan, Hokkaido, there is a big collection of Bibi and Kiusu sites, Chitose City. In late Jomon, people in these sites producted abandant beads and earrings. They used both jade and jadiete for producting. The comma shaped beads is very popular in these sites.

The abundance of prehistory jade in Japan indicated that, Japan – no doubt – is a best choosen country for starting our research on the technology of jade manuafacturing. There are many result of widely research with high technological method on jade showing that Jade of Japanese prehistory revealed the significance of ancient human cultural history. Japan is the best condition place provides an opportunity for our researching.

Comparison: Jade objects have been started its appearance in the Neolithic cultures of Vietnam (aproximate dated to BP 5000) and have been increased with large amount in numerous settelement sites as well as jade workshop-sites from BP4000 to BP 3500. In the north of Vietnam, the collection of jade objects from workshop-sites such as Trang Kenh, Dau Dam, Bo Chuyen, Bai Tu, Bai Ben, Nui Nap,Nui Sen, Dong Khoi... have revealed in jade making. Many trace of jade manuafacture techniques can be seen very clearly in these collections. They came from various dates and various places from north Vietnam to centre Vietnam. In the Phung Nguyen culture – a famous neolithic culture, a very special technique was employed in slicing the jade material. The evidences were found in abundant number of Trang kenh workshop site as well as Dau Dam workshop site, with the trace of cutting in both sides of the jade blank by sawing with sand stone saw for about 4-5 mm deep on the jade material. Jade objects in Vietnam have been found not only ornamentsbut also jade axes, chisel, adze. The slicing technique started inVietnam from neolithic age (BP 4000 – 3500). Almost jade objects in the prehistory of north Vietnam were made of this technique. AS far as we know, this slicing technique was also employed in the Metal Age of Japan. "Shikow technique" is a technological term accepted from Matsuharu Teremura.

In Vietnam archaeology, this period is ever stated as most important period, not only because it is result of the continuous developed from neolithic cultures, but also from rich evidences of jade manufacturing technology, which was maintained in a series of objects, particularly with slit rings associate with drilling trace on discores widly found in jade workshop sites. It is strongly indicated that, in most contemporary archaeological sites of North Vietnam, the rings and slit rings manuafactured from these workshops were existed as exchange items. Through the time, Dong Son and Sa Huynh cultures in the later of Bronze age to Iron Age (BC 700 to 2nd AD), Ojade slit rings still unearthed in hundred of archaeological sites, from the north to the south of Vietnam. In this period, 4 specialized workshop sites produced jade and other stone slit rings were unearthed in the " home land" of Dong Son culture and jade slit ring was one of most favourite onarment item of Dong Son people. From recent study on jade ear ring of Sa Huynh culture, beside the specific characteristic jade earrings including Ling ling O and two headed animal earring of Sa Huynh people, the Dong Son style slit ring was also represented in a large number in many Sa Huynh sites, as probably a symbol of cultural/ecomomic exchange from Dong Son to Sa Huynh.

Concluding remarks

Archaeological analysis clarifies that the jade manufacturing technology from the jade objects and wasted remains in many workshop sites of Japan and Vietnam have not only had traditions of particular, independent formation and development in prehistory but also comprised the similarity of East Asian features.

From our research, the most different factors between jade technology from Japan and Vietnam is: in Japan, the tring technique for cutting jadiete seems to be widely used, but notin the north Vietnam. Recently, the new research made in the high mountain erea of south Vietnam, we found the evidences of tring technique for cutting. However, this evidence indicated that they are independent technique, not coming by exchange or following the cultural interflow. In other technology of jade making, both Japan and Vietnam Ancient societies maintained the same technology as other East Asian countries. The difference can be realised only in the jade shape or in the detail of the making technique.

However, through our research, there is a problem still maintained is: In both Japan and Vietnam, hard stone drill points made of Jasper or Carnelian have been found, but the trace of using indicated that they used in different maner. We hope in the future, this problem will be solved to determine the variously wealthy of jade technology among the ancient people in Japan and Vietnam.

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