

**Academy of the Social Sciences in Australia and the Australian Academy of the Humanities**

**The Academies' Australia–China Exchange in the Humanities and Social  
Sciences**

**REPORT ON A VISIT TO CHINA**

**by**

**Jeremy Green, Paul Clark and Karen Millar**

**19 July - 4 August 1993**

Report - Department of Maritime Archaeology, Western Australian Maritime Museum, No.67

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### **1. PURPOSE OF VISIT / RESEARCH TOPIC.**

On this short visit our intention is to establish contact with scholars in our area of interest and renew interaction with colleagues we have previously had contact with. Having conducted research work in China in the past, this research team recognises the need for a visit of this nature to facilitate the proposed research. Therefore we do not anticipate that the research topics listed below will be completed on this visit, but rather that firm arrangements will be made to conduct this research on a collaborative basis with the relevant institutions and administrative organisations. The research topics referred to are:

- To attempt to identify all the major ship types within the region and to investigate the technological variation of these types;
- To investigate the significance of economic, physical, cultural and social factors in the development of the different types of vessels and the reasons for the technological changes that have occurred;
- To produce a predictive model of the development of shipbuilding and maritime technology and to test this against existing historical records;
- To investigate the influence that both Asiatic and European shipbuilding traditions had on each other and attempt to interpret these findings.

### **Research Questions**

The project has identified a number of research questions that now need to be addressed:

1. The presence of ships in Southeast Asia which are essentially Chinese in style but edged joined with dowels raise the question of the reasons for this diffusion.
2. Within Southeast Asia there are different styles of vessel suggesting separate shipbuilding technologies within the region.
3. Chinese ships were originally built shell first. This technique is no longer used and it is questioned if the change to frames-bulkheads first was a European innovation or change generated by other factors.
4. Throughout the Asian region there are differences in styles of ship construction. It is questioned if these styles are related to the type of sea conditions experienced or are related to the occupation of the vessels or the availability of materials.
5. There is evidence that there are vestigial remains of earlier techniques used in shipbuilding, particularly in the methods of fastening and decoration. It is questioned if these remains can be used to identify the earlier techniques.
6. There is evidence that vessels have been modified for changes in their use, particularly in regard to the introduction of motors.
7. Variations suggest that there are (naturally) differences in the construction and it will be necessary to look at these variations within the Asian region.

## **2. CONTACTS / ARRANGEMENTS WITHIN CHINA MADE BEFORE DEPARTURE**

### **Beijing 2 days 20 & 21 July**

- National Museum of Chinese History: Museum Director: Professor Yu Wei Chao
- National Museum of Chinese History: Director of Maritime Archaeology: Mr Zhang Wei
- Foreign Affairs: Overseas Co-operation Division: Deputy Director General: Mr Lin Yisheng  
Deputy Director: Mr Duan Chongde
- Chinese Academy of Social Sciences: Institute of Archaeology

*22 July depart Beijing for Fuzhou by flight MF 8108 (11.30 - 13.55)*

### **Fuzhou 3 days 22 - 24 July**

- Fujian Provincial Museum: Archaeologist: Li Jian An
- Fuzhou City Museum: Archaeologist: Lin Guo
- Fuzhou Museum

*25 July leave Fuzhou for Quanzhou by mini bus.*

### **Quanzhou 4 days 25 - 28 July**

- Museum of Overseas Communications History:  
Head of Cultural Relics & Archaeology Section: Mr Yang Qin-Zhang (& Mr Chen Peng).

*28 July Leave Quanzhou for Xiamen by mini bus.*

### **Xiamen 29 - 31 July (Paul) 29 - 2 Aug (Jeremy & Karen)**

- Xiamen University, Anthropology Dept.: Head of department: Mr. Zhuang Jin Hui
- Xiamen University, Lecturer in Archaeology: Wu Chun Ming
- Xiamen University, Institute of Southeast Asian Studies: Research Fellow: Chen Xiyu

*Paul:: 31 July Depart Xiamen for Beijing by air*

*Beijing for 3 days (1, 2 & 3 August)*

*Depart Beijing 4 August 1155 for Hong Kong, Singapore and Darwin.*

*Jeremy & Karen:*

*31 July Depart Xiamen for Hong Kong*

*1 August 1450 depart Hong Kong for Perth.*

## **3. ITINERARY (INCLUDE ORIGINAL PROPOSAL AND ANY ALTERATIONS REQUESTED BY CASS)**

### **Beijing 21 July (Wednesday)**

Morning: Meet with our hosts, Chinese Academy of Social Sciences: Institute of Archaeology. (Chen Yi Mei - Interpreter)

- Standing Deputy Director: Professor Wu En
- Director Research Organization Office: Mr Zhang Ziming
- Director, Institute of Archaeology: Mr Ren Shinan

**Discussion:**

A general discussion about maritime archaeology began with our Chinese colleagues giving a brief overview and background to the current work being carried out by the Institute. Zhou Shide from the Division of Natural Science History (Beijing) was currently working on a summary of ship building in ancient times. The oldest maritime artefact/object recorded is believed to be an oar from the coastal region of Jijian? Province. The use of a rudder as early as Hun dynasty.

The discussion then moved on to the possibility of the Chinese reaching Australia. The 7 voyages of Zheng He were discussed. The location of Chinese ceramic finds in the north of Australia due to presence of Indonesian fishermen in the late 16th C, 17th C and 18th C who visited the northern shore of Australia to collect trepang and other marine products for the Chinese market in Southeast Asia and China. Although all agreed that it was quite possible that Zheng He visited Australia (since he had visited Java, Indonesia) no evidence to date had been produced to verify this possibility.

The discussion then moved on to the Ming Dynasty period and the possible reason for the closing of the Chinese overseas trade and communications. Various reasons were discussed, mainly politically based, on the transition and the consolidation of power during this period. Other explanations such as the instability in the south-eastern provinces, the Japanese pirate problems in the coastal regions and the Ming focus of concern on the western borders, were discussed.

Afternoon: Visit National Museum of Chinese History:

- Museum Director: Professor Yu Wei Chao
- Director of Maritime Archaeology: Mr Zhang Wei
- Deputy Director, Foreign Affairs Department, Ministry of Metallurgical Industry (MMI):  
Mr Duan Chongde  
Mr Yang Zhenlin
- Area Officer: Mr Yang Zhenlin

**Discussion:**

The discussions began with Yu Wei Chao giving an account of work that the Underwater Archaeology department had done in the last 3 years. A new shipwreck site called 'San Dao Gang' in Bo Hai (sea) in Suizhong county, Liao Ning province had been found. In October 1991 a preliminary survey was done and the site identified as being from the Yuan Dynasty. C14 date put the age at 700 BP. In May - July 1992 began underwater survey and surface collection. The site was found to have a large number of unbroken ceramics from the 'Cizhou' kilns in Hebe province. About 100 were collected together with some iron objects. In 1993 the work continued and a detailed survey and test excavation was conducted. The site is covered with a 7cm thick concretion which covers an area of 17m x 4.5m. At this stage it is not known to what extent the concretion covers the site or whether there are remains of the ship underneath.

A wide ranging discussion followed about maritime archaeology in China, its future and the possibility of future co-operative projects in conjunction with the Museum of Chinese History. It was proposed that a detailed submission be prepared by the Australian team for discussion by Clark on his return to Beijing later this visit.

*22 July depart Beijing for Fuzhou by flight CA 1505*

**Fuzhou 23 July (Friday)**

Visit the Fujian Provincial Museum:

- Archaeologist: Li Jian An
- Committee Member of the Society of the Ancient Chinese Ceramics: Zeng Fan

**Discussion:**

Initially, we were invited to visit the Fujian Provincial Museum and meet the Director. Discussions centred around the issues relating to the Ding Hai excavation in 1990 and possible future work in the Fujian province.

Visit the Fuzhou City Museum:

- Archaeologist: Lin Guo

- Director: Huang Qiquan
- Archaeologist: Zen Yi Dan

**Discussion:**

Discussed in general terms about working in Ding Hai and publishing in co-operation with the Lian Jian County Museum the ceramics located in the school at Ding Hai and in the Lian Jian County Museum. Discussions were also held about the possibility of conducting a joint boat ethnographical survey in the Fuzhou area.

**24 July (Saturday)**

Visit the Centre for Silk Road over the Sea Studies, Fujian Academy of Social Sciences

- Director China Maritime Silk Route Studies Centre: Chen Da-sheng
- Director Fujian Academy of Social Sciences: Qi Ming Tian
- Assistant Research Fellow: Qu Hong-Liang

**Discussion:**

Mr Chen Da-sheng outlined the scope of the China Maritime Silk Route Studies Centre and its interests. In addition the question of the Sinbad Voyage and the 1991 Silk Road conference were discussed. Plans were outlined for a number of forthcoming conferences. Agreement was reached on sharing information and to circulate information relating to this Centre, particularly in Australia and the Indian Ocean with special reference to Professor Ken McPherson and the Indian Ocean Centre for Peace Studies.

*25 July leave Fuzhou for Quanzhou by mini bus.*

**Quanzhou 25 July (Sunday)**

Visit the New Museum of Overseas Communications History, East Lake, Dong Hu:

- Director: Wang Lian Mao.
- Vice President : Cheng Peng
- Head of Laboratory: Li Guo Qing

**26 July (Monday)**

Visit the Kai Yuan Temple Museum and the Song Dynasty ship:

**Discussion:**

Future excavation programme in Quanzhou, with particular reference to the Fa Shu shipwreck which is to be excavated in 1995. Discussions about the progress of the Quanzhou ship. Proposed joint publication on the Quanzhou ship in both Chinese and English. Discussions about the collection of boat models being collected at the Museum

**27 July (Tuesday)**

Visited the Shen Hu, Jin Jian county, shipyards to inspect and photographically-record the current shipbuilding methods. Visited the port to examine the fishing boats and a local temple. On the return journey we visited the temple to the sea gods where there was a large concrete ship model and inside, a small wooden model. Visited the Tang dynasty Islamic grave sites and the Zheng He commemorative tablet.

**28 July (Wednesday)**

Morning: Visited the statue of Lao Zi in Qingyuan Mountains, the largest taoist statue in China. Then visited the ? mosque in Quanzhou. About 50-60,000 Muslims currently living in Quanzhou.

*Leave Quanzhou for Xiamen by mini bus.*

**29 July (Thursday)**

- Deputy Director, Institute of Southeast Asian Studies, Xiamen University:  
Dr Chen Xi Yu
- Lecturer in Archaeology: Wu Chun Ming
- Head of Department & Associate Professor, Anthropology Department, Xiamen University:  
Zhuang Jing Hui
- Professor, Anthropology Department, Xiamen University (China Anthropologist Association, National Society for Ancient Ceramics Research) :  
Professor Ye Wen Cheng

Visited the Institute of Southeast Asian Studies library and had discussions with Dr Chen Xi Yu and Wu Chun Ming on topics related to the development of shipbuilding in China. In particular the question of the introduction of the change from shell-first to frames-first construction. Dr Cheng gave an explanation of the development of the ‘centipede ship’ after 1525 following the visit of a Portuguese vessel to Gunagdong. The Chinese then built a 7.5 x 1.6 *zhang* (1 zhang= 3m) with 3–4 cannon and 40 oars (V-bottom & deck). In addition a prahu ship was built in the first half of 16th century in Zangzho, Zezang and North coast of Fujian (it had 8-10 oars). Vessels copied from SE Asia had 8–10 oars each side and were used by the Navy. Questions arose regarding the extent of the transfer of SE Asian techniques into Chinese shipbuilding given the limited time for this transfer to occur and little evidence to suggest SE Asian shipbuilders were present to “transfer” these techniques. Discussions were held about the influence of the Ming Ban and the Chinese reference to ‘pirates’ which in fact were smugglers. In addition Dr Chen mentioned references to three rudders used on Chinese ships in the 14th century (one axial and 2 quarter).

Dr Chen mentioned a private ship/boat building company at Zhang Zhou near Xiamen (5-6hrs NW on river). Zangzhou (one, if not the most important port in the Ming Dynasty) was the only port in the Ming Dynasty allowed to conduct overseas trade.

*Paul:: 31 July Depart Xiamen for Beijing by flight ??  
Beijing for 3 days (1, 2 & 3 August)  
Depart Beijing 4 August 1155 for Hong Kong, Singapore and Darwin.*

*Jeremy & Karen:  
31 July Depart Xiamen for Hong Kong  
1 August depart Hong Kong for Perth.*

#### **4. RESULTS OF RESEARCH (5-6 PAGE SUMMARY)**

There are a number of different methods of investigating the above questions, these methods included the following:

1. **Ethnography** of contemporary ships of the region have important information that may have significance to the traditional shipbuilding techniques. This project approached the subject from a technological viewpoint which may provide interesting and different viewpoints from the earlier approaches. The work may also provide an interesting comparative source of information.

Emphasis is being placed on collecting information from vessels that are currently in use, older vessels that have been abandoned as well as vessels that are being constructed in the traditional way. This involved recording the lines of as many vessels as was practical to include a range of hull types and sizes. The comparison of these hull shapes can then be made with the use of computer aided graphics. Construction details including the methods used to join and caulk timbers, the types of timbers used, the rigging fastenings, decking features and other details need to be documented in scale drawings and photographs. These details are more valuable indicators of relationships, tradition and change than the more immediately obvious overall shape.

2. **Historical research** is additionally an important aspect of this project. There are a large number of sources within the early European visitors to Asia that commented and recorded information about Chinese ship construction. The project will attempt to collate all the available information and initiate ongoing research by Chinese scholars.
3. Study of existing shipbuilding traditions within the **region** will provide a **comparison** between the various shipbuilding techniques.
4. **Comparison** between Asiatic traditions and changes compared with **European** trends. There is considerable evidence that the same set of dynamics created the same changes in the two geographical regions. The study will compare the changes within the two regions to seek the major casual factors creating these changes.

As a result of this visit, hosted by the Chinese Academy of Social Sciences, the following research projects have been initiated, discussed with the relevant Chinese scholars and authorities involved and firm plans made for their progress. Aspects of the work will begin on our return to Australia with some projects extending over a number of years and others, already begun, will take a shorter time to completion. These projects have direct relevance to the research questions raised in the above section (1) and links Chinese shipbuilding traditions, ceramics manufacture and trade. The collaborative nature of these research projects is important since it leads to further developmental work and also enhances expertise in these fields of inquiry for both the Australian and Chinese participants.

### **Fujian Province Boat Ethnography**

#### **A proposed joint programme with Xiamen University to carry out an ethnographic survey of contemporary wooden boat building on the Fujian coast.**

The programme to be co-ordinated by the Department of Anthropology, Xiamen University and in conjunction with the Overseas Communication History Museum, Quanzhou and the Provincial Museum in Fuzhou. After much discussion it was decided that the most appropriate method of co-operation would be through a 'visiting scholar/lecturer' programme with Xiamen University. One or two Australian's would be invited to give a week of lectures in the Anthropology department and then to conduct 4 weeks ethnographic field work. The field work format would be of the 'over view' type, rather than a detailed study. Depending on the success and the results, a more detailed proposal would then be submitted (to the relevant Chinese Authorities) as a joint co-operation between Xiamen University and the Australian maritime archaeologists.

### **The Ding Hai Underwater Archaeological Project**

The research component of this project involves analysis of the data collected during the 1990 season. This will include the final joint report, to be published in English and Chinese, and involves the production of photographs, drawings and site plans etc. prior to publication. In addition the 1994 season research programme will involve analysis of samples, carbon dating, construction of site plans, distribution patterns, artefact analysis and translation prior to publication.

The proposed 1994 fieldwork programme is related to the development of the initial research and training programme and centres on maritime archaeology and boat ethnography. Part of the programme is the continuation of the training of Chinese underwater archaeologists which will be conducted as part of the excavation and survey that was started at Dinghai in 1990. The site, which

produced a large number of black glazed bowls probably dating from late Song to early Ming, is ideally suited for training students because it is located in sheltered and shallow waters near the village of Dinghai.

### **The Ding Hai Ceramics from the Sea Project**

In conjunction with the Lian Jiang County Museum, the project hopes to catalogue, draw and photograph the ceramics that have been recovered from underwater sites in and around Ding Hai. During the 1994 field programme, members of the team will be involved in collecting data from the artefacts in the Provincial Museum in Lian Jiang and those at the High School in Ding Hai. It is hoped that the Chinese ceramic specialists from Fujian Province will assist in writing the expert text related to the ceramics and that the Australian team will be involved in the production of the final catalogue to be published in Chinese and English. The Committee will decide the most appropriate time and place of publication.

### **The Quanzhou Ship Project**

The Australian group intends to construct lines drawings of the Quanzhou Ship using measurements made in 1988. The objective of this work will be to produce a joint publication on technical aspects of the Quanzhou Ship.

## **5. RELEVANCE OF RESEARCH:**

### **To other institutions in Australia / elsewhere**

All of the research undertaken by this team will be, or is in the process of being, written in both Chinese and English. A selection of publications written by Chinese scholars will also be translated into English. This means that institutions outside of China will now have access to research information and results previously only available to those who can read Chinese and for the Chinese, access to specific publications in their language.

### **To local scholars working in similar fields**

A number of the projects outlined above involve Chinese scholars from a variety of specialist fields of study.

The Fujian Province Boat Ethnography project will include a 'visiting scholar/lecturer' component. One or two Australian's will give a week of lectures to scholars in the Anthropology department of Xiamen University before conducting 4 weeks ethnographic field work. It may be possible for a small group of Chinese scholars to accompany the field work team.

Part of the Ding Hai Underwater Archaeological Project (planned for 1994) is the continuation of the training of Chinese underwater archaeologists which will be conducted as part of the excavation and survey that was started at Dinghai in 1990.

In conjunction with the Lian Jiang County Museum, the Ding Hai Ceramics from the Sea Project hopes to catalogue, draw and photograph the ceramics that have been recovered from underwater sites in and around Ding Hai. During the 1994 field programme, members of the team will be involved in collecting data from the artefacts in the Provincial Museum in Lian Jiang and those at the High School in Ding Hai. This will involve the Chinese underwater archaeologists who are

continuing their training and other scholars with a special interest in ceramics and their documentation.

### **To future participants in Exchange Programme**

This research team has made many contacts with Chinese scholars interested in this or associated areas of study. This contact and transfer of information has indicated to both parties where information and resources are available in each others countries and institutions. Scholars from both countries see the benefit of taking part in the exchange programme to access these resources and materials.

There is the opportunity for scholars to benefit from the research work undertaken by Australian archaeologists by visiting our institutions to conduct research. We would welcome the opportunity to assist our Chinese colleagues who wish to participate in this exchange programme.

## **6. SUPPORT FACILITIES PROVIDED IN CHINA:**

### **Access to libraries, archival material**

Access to the libraries of various educational institutions was readily available, translation is required for archival material and publications by Chinese scholars.

### **Office accommodation, etc**

Not required.

### **Transport**

Suitable transport was provided which allowing us to have a flexible programme whilst in China.

### **Difficulties encountered in access to essential research material**

None.

## **7. ASSESSMENT OF SUCCESS IN CARRYING OUT RESEARCH PROPOSED:**

### **Agenda appropriate to time/facilities available?**

Yes.

### **Preliminary preparation / organisation sufficient?**

Yes.

### **Data needed available to foreign scholars?**

Yes, some shipbuilding yards previously inaccessible to foreigners are now unrestricted.

## **8. PUBLICATIONS ARISING FROM RESEARCH (INCLUDE FORTHCOMING)**

Publication of the research results will take the form of a number of separate monographs, articles and books on the many aspects of the finds with a synthesis of the overall results constituting the final report. In addition, all publications will be under joint authorship, that is the Australian and Chinese parties will be acknowledged as authors.

- An interim report (in English) on the 1990 Baijiao excavation is to be completed to complement the report (in Chinese) by the National Museum of Chinese History. This will be published by early 1994. In addition the final report of the proposed excavation of the site will be completed (in Chinese and English) by the beginning of 1995.
- A joint publication on the Dinghai ceramics (located in the School and in the Lian Jian County Museum) will be published in conjunction with the Lian Jian County Museum.
- A joint publication on the lines and other technical aspects of the Quanzhou Ship will be produced and published in conjunction with the Quanzhou Museum of Overseas Communication.

## **9. RECOMMENDATIONS:**

### **To future visiting scholars**

Prior to visiting China, it is important to have established who the relevant institutions and individuals are that are involved in your area of research. Much can be gained by having communicated previous to your visit since it is possible to ascertain more clearly who and where the information that you require is. It is also a good starting point for discussions. Copies of books, publications, reports etc. that you have produced are appreciated as gifts as well as pamphlets, photographs on your institution.

On a note of etiquette, it is worth having a good supply of name cards made up (name, position, institution address, phone and fax numbers), in English and with the Chinese characters translated on the other side.

### **To the Academies for any follow-up action.**

The success of the interaction between people discussing specific topics and complex concepts without being able to communicate directly in the same language, is dependant largely on the ability of the interpreter. Our research team would like to congratulate the Academies for their choice of interpreter, Chen Yi Mei. Her professional approach to her work along with a very agreeable personality combined to make our communications with Chinese scholars meaningful and interesting.