Conservation of Cultural Materials in China A dialogue with Chinese conservators

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1. Executive Summary

This Fellowship was pursued to understand the general work of and, more specifically, the role of Chinese conservators in the loan process for exhibitions of cultural materials between New Zealand and China. This knowledge will help conservators in New Zealand understand the context for loans from China and manage expectations during their role in the loan process. As well, the Fellowship aims to make connections with conservators in China for future collaborations and communication between conservators in the two countries.

The research was carried out by meeting and discussing the job tasks of over 50 conservators across eight cultural institutions in four Chinese cities.

Findings show that the conservator role in China has some distinct differences to the role of New Zealand conservators in cultural institutions. One conservator role in New Zealand is split into two in China: the conservator, or scientific research role, and the restorer, or repair of cultural materials role. The two roles are distinct from each other and the training is completely different. The conservator trains in scientific methods via formal university studies and the restorer generally trains as an apprentice with an in-house master in an institution.

As expected, all the conservators in every institution visited are involved in the treatment of cultural material for loan. But more specifically, of the eight cultural institutions, conservators in only two institutions (Palace Museum and National Library of China) are directly involved in tasks related to loans beyond physical treatment of cultural material. This may have an

impact on the expectations held by New Zealand conservators and the way work is managed when dealing with loans from China. Of the six institutions where conservators were not involved directly in the loan process only one voiced concern at this lack of involvement. This points to the observation that the structure of Chinese museums is siloed. Again, this helps the New Zealand conservator understand the context in which loans are managed in China.

As a result of this fellowship it is recommended that direct connections are made where possible between New Zealand and Chinese conservators. Also that New Zealand conservators allow extra time and consideration when dealing with loans to and from Chinese institutions. Finally that conservators establish connections and explore the excellent opportunity to collaborate on the analytical research of cultural materials.

The Fellowship was limited to primarily meeting conservators with the understanding that they would be able to answer questions relating to loans. It would have been valuable to have also met staff from the department managing the loan programme having discovered that conservators play a more limited role than expected.

2. Introduction

New Zealand wants to promote cultural exchanges with China. As a result, New Zealand and China are undertaking more and more loans, exchanges and exhibitions of cultural materials. In order to undertake these loans and exhibitions a loan process is usually followed inside a broader loan programme and a loan agreement is made between the lender and the borrower of cultural material. The loan process generally involves a large number of staff. Depending on the size of the institution, this can include directors, exhibition staff, collection managers, curators, registrars, researchers, educators, technicians and conservators.

Ideally, the loan process requires a conservator and conservation practices to ensure the safe handling, packaging and exhibition of art and cultural materials (object). The extent of the conservator's role varies dependent on the size of the institution and the availability of a conservator. Generally speaking, in New Zealand the conservator is responsible for the physical care of the object for loan. Those responsibilities include: advising on the suitability of an object for loan, condition reporting, treating and preparing the object for loan and display, setting conservation conditions such as temperature, humidity, lighting and handling requirements, advising on display supports, safe packaging and transport, and oftentimes accompanying a loan to oversee safe transport and assist and advise on installation, deinstallation and packaging.

The governance of cultural institutions in China is highly hierarchical¹. This hierarchy may affect the decision making by each museum. It may also affect the level of involvement of conservators in particular job tasks. The staff roles of museums in China are not the same as those in New Zealand institutions. For example, there is not the exact equivalent of a curator in Chinese museums. The same could be said for the conservator role. Not a lot is known

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 $^{^{\}rm 1}$ AICCM Zhanyun Zhu & Tonia Eckfeld (2016) The development of conservation

about Chinese conservators' working practices, techniques and skills, and this is often intensified by a language barrier. Nonetheless, conservators are generally responsible for the care and preservation of cultural materials. The level of care and responsibility, as agreed through a loan agreement between the lender and the borrower, also extends to cultural materials that are on loan for exhibition from another institution. This means that once cultural materials are on loan in another country, the staff and conservators in the borrowing institution have a duty to oversee care for materials on loan and vice versa.

This project involved travel to four Chinese cities: Shanghai, Suzhou, Nanjing and Beijing, to meet conservators and understand work practices, techniques used, the training and the resources available and the method of work undertaken by conservators in China, particularly for loans and fulfilling the loan process. The project also aims to open an exchange of ideas and information and promote friendship and possible collaboration between New Zealand and Chinese conservators of cultural materials.

3. Key Learnings

The key questions of the project were:

- What is the working context of Chinese conservators? In other words what is the training, how are decisions made, how is the institution structured, what equipment, tools and training is available?
- What are the job responsibilities and how do they differ to conservators in New Zealand?
- What is Chinese conservators' involvement in loans and the loan process.

Cultural exchanges are important to help people understand who they are and their place and value in the world. Loans of cultural material help to facilitate this understanding. When we have a greater understanding of other cultures we are more likely to increase interaction in various ways. We can understand and connect with similarities and appreciate different yet equally valid ways of doing things and solving problems.

New Zealand conservators do not have a context for the loans that come from China. A number of conservators have spent time in Chinese cultural institutions but may not have had the opportunity to speak with Chinese conservators to understand their role and in particular the responsibilities for loans to and from China. Some past anecdotal examples show that New Zealand conservators have been faced with challenges relating to standards of packaging and display of cultural materials coming from China as well as issues with differing levels of documentation for the objects on loan.

An assumption has been made that conservators in China have the same responsibilities as New Zealand conservators. Due to the institutional structure and job roles Chinese conservators do not generally interact with conservators of the other institution. Instead, the interaction may be with exhibition and collections staff that may not have the same experience or training to the technical level of a conservator. This has the potential to lead to complications: possible renegotiation of loan conditions, increased costs, time and resources and added stress for the lender and borrower.

Understanding the role and responsibilities of Chinese conservators allows the New Zealand conservator to plan and manage their part in the loan process in a way to accommodate differing expectations. This can lead to better time management and control of costs in the loan process thereby minimising additional resource costs to the organisation.

Exhibitions are a way to build knowledge and promote a New Zealand brand in China as well as of China in New Zealand. According to the *Opening Doors to China New Zealand's 2015 Vision*² it "is important to help make New Zealanders feel comfortable with engagement with China to ensure New Zealand is a welcoming place for Chinese business people, migrants, investors and tourists". The benefits of this project for New Zealand include a greater ability to enjoy and appreciate cultural materials exchanges with China, an increased frequency of exchanges between the two countires, potentially improved loan agreements, better care and packaging of materials, all resulting in improved exhibition experiences.

Ultimately, the value of this project is an increase in the ease and number of loans of cultural materials between New Zealand and China, potentially resulting in increased tourism between the two countries as we discover more about our cultures through mutual exhibitions and cultural exchanges.

² Opening Doors to China New Zealand's 2015 Vision. New Zealand Trade and Enterprise (NZTE) and Ministry of Foreign Affairs and Trade (MFAT) 2012

It was valuable to learn that the role and responsibilities of Chinese conservators differ from those of conservators in New Zealand. It is very hard to find out any information on the working roles of Chinese conservators. By visiting conservators in China and understanding the work that they do it was possible to ask questions directly and to view the work being done. Not only is it somewhat difficult to make connections and get invited to visit institutions there is also a language barrier. It is not easy to have a technical discussion between two professionals even with a proficient interpreter. As with all professions conservation is full of jargon, not easily translated. Being with a conservator in person helped make this difficulty easier.

Prior to the project I asked conservators about their experiences of exhibitions and loan agreements with China to understand what would be valuable to them from this project.

Conservators were interested to understand how loans are prepared in China, for example:

- What are the general display environmental parameters?
- What display materials and cases are used?
- What materials are available for treatment and display?
- What levels of security are there?
- Are there dedicated installation teams?
- A general understanding of the role of Chinese conservators: what training and ongoing research opportunities are there?
- How are treatment decisions made?
- What standards and ethics are followed?

The learnings have helped me to understand in a direct way how Chinese conservators work and what tools and experience they have.

I had expected to meet conservators and talk through their role in the loan process. What I found was that while conservators in China are highly trained they do not play a big role in the loan process. This has shed light on why there has been some confusion for New Zealand conservators with loans coming from China.

Except for two institutions conservators are not involved in assessing whether an object is suitable for loan. This lack of involvement could be due to the hierarchy of the museum and the structure of decision making, where the work of the conservator is often directed by government / political / diplomatic needs over any conservation plan made by the conservation department. For example, the decision to loan an object is agreed and the conservator must do the work necessary to make that object fit for loan. The Shanghai Museum, which has over 50 conservation staff, does not use the knowledge and expertise of conservators in making these decisions. Conservation staff do not know what objects are going on loan overseas. They are only involved if the object is deemed to need conservation treatment to make it fit for loan. At the much smaller Suzhou Museum the decision on what gets treated is made by the Preservation Department (responsible for curatorship, exhibitions, research (not analytical) and storage). The conservators are not required to advise whether something is too fragile to exhibit nor do they write condition reports before an object goes on loan.

Chinese conservators are highly trained. This is either through an apprentice style training with a master in-house or through university training.

While conservators were not always able to answer questions relating to preparation of cultural materials for loan there was the opportunity to speak with other staff members. I found that:

- All institutions had dedicated install teams.
- A number of institutions showed me documents relating to work standards used by conservators.
- Institutions aimed to complete preparation of the exhibition space (eg: painitng) two weeks prior to installation.
- Standards for environmental parameters and security were agreed and accommodated ahead of time with institutions.

An unexpected benefit of my project is the realisation of the extent of analytical equipment available to Chinese conservators (see appendix 6.5). In China, most conservators have access to a large range of technical and analytical equipment, tools and instruments. On the other hand, conservators in New Zealand do not have the same easy access to in-house equipment and must rely on external connections with universities or institutions with specialist equipment. This leads to possible opportunities to collaborate on analytical research between Chinese and New Zealand conservators and institutions. An example of this collaboration could be working with Chinese conservators in approaches to conservation of Chinese cultural materials in New Zealand collections.

Appendix 5.3 gives more specific observations of each institution visited.

4. Recommendations and Conclusion

The Fellowship contributes to the Trust's purpose by advancing the understanding between Chinese and New Zealand conservators. I will share the learnings with people in the cultural heritage sector. I expect to do that at conferences, meetings, in publications that involve conservators and other interested cultural heritage professionals.

I have already contributed to the body of knowledge available to New Zealand conservators with a paper at the NZCCM Pu Manaaki Kahurangi conference in October 2017. I am also delivering a paper to the Australian Institute for the Conservation of Cultural Materials (AICCM) *Book and Paper* symposium in Melbourne in November 2018.

I have also shared informally with educators who train conservators and connect with China via university connections. This may be information of relevance to keep the reality of working with Chinese conservators in perspective.

There are definitely colleagues beyond New Zealand, such as Australia who are interested in the information I have gathered. Other museum professionals may also be interested, such as: Collection Managers, Curators, and Registrars to add to the body of knowledge they already have working with Chinese cultural institutions.

Conservators in China are highly trained yet carry out different roles and have varying responsibilities to those of the New Zealand conservator. Most Chinese conservators do not have a large role in the loan process unlike New Zealand conservators. The learnings of this project can be applied by focusing mainly on developing relationships between New Zealand and Chinese conservators. The following recommendations are made:

- a. Make connections directly between Chinese and New Zealand Conservators when borrowing and lending cultural material.
- b. New Zealand institutions and conservators need to factor in time to allow for differences in the loan process, such as documentation,

- standards and expectations.
- c. When agreeing loans with China specifically ask for a full condition report to be prepared by conservators. Alternatively New Zealand conservators must allow time to do this themselves.
- d. Explore the opportunity to collaborate on analytical research between Chinese and New Zealand conservators and institutions. An example of this collaboration could be working with Chinese conservators in the approaches to conservation of Chinese cultural materials in New Zealand collections.
- e. Establish connections and a collegial relationship between conservators in China and New Zealand via our respective professional bodies. Staff retention is high in China and relationships have the opportunity to maintain continuity.

5. Appendices

5.1 Travel itinerary

VISITING PROGRAMME CHINA AUGUST 2017 Winston Churchill Trust / NZ China Friendship Society

14/8 Monday Shanghai Visit Chinese family GuDai Lu 2000.	15/8 Tuesday Shanghai 10 am Shanghai Museum 201 Ren Min Da Dao. 周燕 群 ZhouYanqun Mr Huang 1118 Longwu Rd Cons Lab 2.30pm Shen Hua 22/8 Tuesday Train G7044 to	16/8 Wednesday Shanghai Long Museum 23/8 Wednesday Nanjing	17/8 Thursday Shanghai Mr Ruye Chen Guangfu Museum. Shanghai tower Line 2 to Lujiazui Station exit 6	18/8 Friday Shanghai Old Shanghai yu yuan/ French quarter. 25/8 Friday 11am Train G14	12/8 Saturday depart Wellington 19/8 Saturday Train G 7010 to Suzhou line 1 from Peoples square to shanghai station Subway line 2 from Suzhou to Shi Lu station 26/8 Saturday Beijing	13/8 Sunday arrive Shanghai Line 2 to Peoples Square /Park go out gate 8 Nanjing Rd The Bund 20/8 Sunday Suzhou river boat and walking tour arts and crafts 27/8 Sunday Beijing
9.30 am Suzhou Museum Mr Zhang Fang	Nanjing station - line 1 to Zhangfuyuan Station	9.30 am Ms Shi Lan Nanjing Museum	Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders	from Nanjing South (line 3 from Confucian temple) to Beijing South (line	Art Studios visit	7 am Great Wall
28/8 Monday <i>Beijing</i>	29/8 Tuesday Beijing	30/8 Wednesday Beijing	31/8 Thursday Beijing	1/9 Friday	2/9 Saturday	
2.30 National Art Museum Ms She Meng 1 Wusi St DongCheng district	National Library of China Ms Xie Tian	9.30 am Palace Museum meet Liu Yu Fang at West Gate	Tian Tan Tiananmen	Fly to HK	Arrive Wellington	

5.2 Questions

Number of staff Number of conservators Conservation specialities Number of laboratories Location of laboratories Size of lab Equipment available Special focus area Who sets conservation plan? Conservator tasks Training undertaken On-going training opportunities Areas want more training Do you have research opportunities? What standards are worked to? Involvement of conservators in loan process

5.3 Institutional Visits

In August 2017 I spent three weeks visiting eight cultural institutions in four major cities in China: Shanghai, Suzhou, Nanjing and Beijing. Seven of the eight institutions were government operated. Only one was a private museum, in Shanghai, and I was not able to meet any conservators as they were all based in Beijing and I did not have enough time in Beijing to fit this visit in. The institutions I visited were:

- Shanghai Museum, Shanghai
- Guanfu Museum (private), Shanghai
- Suzhou Museum, Suzhou
- Nanjing Museum, Nanjing
- Nanjing Library, Nanjing
- National Library of China (NLC), Beijing
- National Art Museum of China (NAMOC), Beijing
- Palace Museum, Beijing

Following is the summary of learnings from each cultural institution visited:

SHANGHAI MUSEUM, Shanghai

Shanghai Museum is located centrally in Shanghai's Peoples Park. They have four floors showing mostly the permanent collection with three spaces for temporary exhibitions. The permanent collection exhibitions are rotated about every three to four months. The museum has a strong loan programme with international museums with current loans to Hong Kong, USA and Greece, with plans for loans to France and Russia in 2018. The museum also has a strong incoming loan programme. At the time of my visit they had the British Museum's 100 Objects exhibition as well as an exhibition from Hungary.

I met with the Director of International Relations Ms. ZhouYuanqun and her colleague Mr. Zhou Xuwen He. The loan programme functions in a similar way to those in New Zealand institutions. Loans are agreed at a high level about two years in advance and incur a standard fee to cover costs. Shanghai Museum takes approximately two months to change over an exhibition allowing two weeks for re-painting and another two weeks for installation of the exhibition by dedicated teams. Security and any specific requirements for incoming loans are agreed with the lending institution. The Museum shared information that their main on-site storage and dock-way are underground. This has implications for movement of loans in and out as the dock-way is sometimes too small for crates so they have to come in the main entrance after hours.

Objects for loan are selected and assessed by curators and ideally objects considered stable are recommended for loan. Conservators are called to treat any objects not stable for loan.

The Shanghai Museum Conservation Centre is located about 15km from the main museum building in People's Park. The Centre's building was renovated in 2015 with six of the eight stories dedicated to the Conservation Centre. The Centre has a staff of 43 and is split between the Restoration section and the Conservation section. The Restoration section includes the scroll mounting and bronze / ceramic restoration laboratories. The Conservation section is staffed by professionals who have studied conservation in China. For example, the interpreter who was a staff member of the Conservation section has a Bachelor in Conservation from Peking University, Beijing and a Masters in inorganic chemistry from Fudan University, Shanghai. Her role is to undertake analytical research for the museum. The Conservation Centre operates a Conservation Plan that outlines the tasks and projects of conservators. However, this plan is over written by the Government Plan that takes precedence. The Centre also publishes the quarterly journal *Sciences of Conservation and Archaeology*. This academic journal brings together analytical research from institutions across China.



Staff scroll-mounting studio Shanghai Museum

As a paper conservator I was able to spend time with the staff of the Restoration scroll-mounting studio and some Conservation staff. This gave me the opportunity to discuss the museum's loan process and their role in it. As expected, I found that loans are planned and organised through another museum

department, Collections. But what was interesting was the Restoration and Conservation staff did not know when an object was going on loan. The only time conservation or restoration staff are contacted about loans is if an object needs to be treated in preparation for loan. The

Collections department makes the assessment for suitability for loan and whether an object needs treatment prior to loan. For the conservation centre staff this wasn't so much a problem for them as it may have been for New Zealand conservators. There are a number of other tasks that would usually involve conservators in New Zealand that don't at the Shanghai Museum. This includes having the list of objects going on loan, signing off on their suitability and writing condition reports prior to loan. This indicates that the structure and responsibilities of conservators are different to those in New Zealand.

The conservators at the Centre work to ethics and standards and gave me a number of written standards to keep. The most interesting standard, as it relates very much to the New Zealand situation, is the *Specification for Seismic Protection of Museum Collections* 2015. This is apparently the first standard of its kind internationally and one that Shanghai Museum contributed to. It is put out by WW a Chinese standards group and written completely in Chinese – it would be very helpful to have this standard translated into English.

GUANFU MUSEUM, Shanghai

The Guanfu Museum was the only private museum I visited. The museum is owned by Mr Ma, a private collector, who started to collect objects of everyday use in the 1960s. He eventually opened a private museum in Beijing in the late 1990s and has since expanded to open the Shanghai branch in 2017. The museum is located on the 37^{th} floor of the Shanghai Tower – China's tallest building to date and the worlds second highest.

The museum has one conservator, based in Beijing. So far the museum has not undertaken any loans of cultural material although the intention is to do so in the future. There are numerous exhibition galleries in the Shanghai branch with items on display including gold, objects, ceramics, buddhist objects, textiles and an exhibition of popular export objects.

Decsions on exhibitons and installation are carried out by teams from the Beigjing branch.

Storage for the museum was in the lower floors of the same building. The highly secure

storage was one of few commercially available temperature and humidity controlled storage facilities in Shanghai at the time.



The gold gallery of the Guanfu Museum.

SUZHOU MUSEUM, Suzhou

The Suzhou Museum was founded in 1960 and redesigned in 2003 by architect IM Pei, of Louvre pyramid fame. It is the smallest of all the government institutions visited and has 2,200m² of exhibition space and, for example, over 10,000 Chinese paintings. I initially met

with Mr Zhang Fan Head of External Affairs and Cultural Communication and his colleague Miss Ling who gave me a run down of the museum. The Suzhou Museum operates under the Local Authority of the Suzhou Bureau of Cultural Relics.



I then met Ms Yao head of the Conservation Department. Again, as with the Conservation

Centre of the Shanghai Museum the conservation department is split. At Suzhou Museum, the Conservation Department is responsible for the physical care and restoration of cultural materials and the Preservation Department is responsible for curatorial, exhibitions, non- analytical research and storage. She was ale to tell me that they have monitoring equipment in cases and repaint and redesign all new exhibitions.



The Conservation laboratory is headed by Mr Zhou who is the 85 year-old scroll-mounting master who has three apprentices working with him. There were no other conservators working in the museum. If any conservation treatment is needed on any other object not

covered by scroll mounting the work is carried out by conservators in other museums with that speciality.

The treatment programme is agreed by the Preservation department or curators, rather than the conservators. In the same vein, the conservators have no say in whether something is too fragile to exhibit or loan. Similarly, all loans are decided by the State Administration of Cultural Heritage.

NANJING MUSEUM, Nanjing

The Nanjing Museum is spread across 70,000m² of exhibition space with two to three exhibitions on loan per year from overseas. The Conservation Centre, located off-site but just next to the Museum, is in a newly renovated six-storey building (5,000m²) devoted to the conservation of cultural relics.

A staff member of the Cultural Exchange Centre met with me and introduced me to the Deputy Head of the Conservation Centre, Dr He. Dr He heads a staff of about 50 who cover the conservation of both organic and inorganic materials with about 20 of those paper conservators. The Conservation centre staff consisted of two roles: conservators who are university trained to Masters or Doctorate level, do the analytical research, as well as some minor treatment, and technicians who are trained in-house out of school and do treatment work – usually the larger more complex treatment projects. There is some cross over between the two roles. Technicians will call on the conservators to assist with research on materials being treated.



Testing of Chinese medicinal plant extracts

The technical labs were not very busy as there were seven people away at a conference in Shanghai. Their special area of focus is the scientific research of paper. One paper conservator was carrying out a test to extract organic compounds from certain Chinese medicines by distillation. The extract was tested for effectiveness as an alkaline wash and for dyeing paper. The conservator said she was about three years away from publishing her results in the Shanghai Museum's *Sciences of Conservation and Archaeology* Journal.



Nanjing Museum scroll mouting lab

Traditional Chinese paper is used for repairs. This Xuan paper is Red Star Brand from Anhui province. It is listed on the Chinese cultural heritage list and is in such high demand (for example the British Museum uses this paper) the papermaker cannot produce enough. The paper must still be stored and kept for at least five years to stabilise it and make it softer before it can be used in conservation.

Loans are agreed by the Collections Department. While there are no curators per se, there are known 'subject experts' that are called and matched for each exhibition. The Conservation department is only involved when an object needs to be treated prior to loan. Staff do not have a comprehensive list of objects going on loan and are only alerted if the Collections Department find any damage that needs treatment. That means that conservators are not

expected to assess the suitability for loan, write condition reports or offer any further advice on the care, handling, packaging or display of objects on loan.

NANJING LIBRARY, Nanjing

Nanjing Library has a staff of approximately 400. The conservation team is part of the Department of Historical Documents along with the Team of the Keeper, that prepares all the loans and the Team of the Editor, that undertakes cataloguing. I toured the Library with the Keeper of Rare Books. The Conservation department consists of one large laboratory (1,000m²) with 14 conservators plus the head of department. The conservator's focus is the restoration of rare and ancient books.

The laboratory was well set up for remedial treatments. They had a dry working area with many red tables. The equipment available included a microscope, pH metre and paper thickness machine. As well there was a wet working area with a large sink and a new low oxygen equipment for insect and pest control. The company who made the low oxygen machine had just gifted it to the Library in the hope that they would promote it to other institutions.

This laboratory was the best place to see work being undertaken. I was able to see old volumes taken apart and repaired using newly dyed paper. Conservators were repairing a book taking off the old repair as it wasn't a good dye colour match. One conservator was working with a wet page on a soft surface keeping it wet as she went. She was tearing directly on top of the page to be repaired to match the tear shape.



Removing an old paper repair.

I was shown how to sew a simple Chinese book-binding and was able to video this as we discussed how I had treated a Chinese book in New Zealand. I was given the book to take with me. I plan to have a simple workshop for conservators to share what practical skills I learnt.

We looked at their large collection of repair papers – all Chinese. They had over 150 types of paper with more than half being from bamboo with the others various types of tree bark. They came from various paper makers around the country. They didn't use all the papers and had to rest them for about 5 years to let them off gas. All the paper labs said this.



Store with over 150 types of Chinese repair paper.

Although the Library had undertaken a couple of loans the conservation staff were not involved beyond any treatment needed.

NATIONAL ART MUSEUM OF CHINA, Beijing.

The idea of art museums is relatively new to China with the National Art Museum of China (NAMOC) founded in 1963. The museum houses over 110,000 objects with 6,600m² of exhibition space over 6 storeys. The museum is currently planning for a new location and building.

The conservation department is on site and was set up in 2010. It consists of six laboratories with six conservators covering paintings, scroll mounting, objects and a new laboratory for western paper conservation. The conservators are all quite youthful and had had prior training, for example a Bachelor of Fine Art. Further training is provided in-house and there is reliance on other conservators both in China and internationally to assist with that training. The conservation labs were well set up for treatments, with a focus on modern and contemporary Chinese art. Conservation of traditional art such as scrolls, as well as folk and ancient Chinese art is also carried out.



Paintings conservator discusses a treatment.

At NAMOC Collection Management is responsible for loans and only seek assistance from the conservators if conservation treatment is needed. The two departments do have discussions as to whether an item is suitable for loan but the conservators don't assess every object for suitability for loan.



Crates for loans.

NATIONAL LIBRARY OF CHINA, Beijing

The National Library of China (NLC) is a large organisation of 1,500 staff spread over three locations and many branches. The Library dates from 1906 and holds more than 35 million items. It is considered one of the largest libraries worldwide.



Wenjin Building for the Ancient Books Library

The conservation labs are located both on-site and off-site with a total of 40 conservators. The main public library building houses the Restoration section with 14-15 conservators who concentrate on the restoration of traditional and ancient books. The remaining conservators are off-site a number of kilometres away.



Fibre analysis equipment.

The conservation plan is set by the National Centre for Ancient Books restoration who are the policy writers for national protection. They do seek opinions from other provincial libraries when writing plans for labs not involved in decision-making. The Centre of National Conservation Works also writes standards that apply to all institutions with paper collections. The National Library also has its own standards and policies but there is no conflict between the two in practice.

Conservators at the National Library must have a Masters degree and have undertaken training such as Art History or Chinese History. There are on-going training opportunities for staff mostly based overseas.

Conservators work to standards but do not have them written down. Conservators adhere to conservation principles, such as the idea of reversibility of materials used in conservation.

PALACE MUSEUM, Beijing

The Palace Museum is considered one of the largest museums in the world. It houses about 1.8 million objects and has about 1,500 staff. Demand for visitors is high and admittance is capped at 90,000 people a day.



Hospital for Conservation, Palace Museum, Beijing.

Historically, the scientific section of the museum was set up in 1982 with the conservation department started in 1997. The conservation department, or Hospital for Conservation, as it is now named, is on-site in the Palace Museum grounds, in the centre of Beijing. The Hospital for Conservation has the largest conservation laboratory space in China at 13,000m². It has 14 specialty laboratories with about 150 conservators. They had just employed 70 new conservators who were required to have a PhD to start work there.



Discussing conservation techniques with staff at the Palace Museum.

The conservation department is divided into four main sections; packaging, restoration, scientific and administration. The packaging section concentrates on individual packaging for objects both for loan and for storage. When an object goes on loan contractors are used to construct larger packaging like crates etc. The restoration section includes laboratories for metals, clocks & watches, textiles, wood, lacquer ware (the only lab of its kind in China), inlay, ceramics, replication (digital). The scientific section concentrates on preventive conservation, organic and inorganic analysis, scientific treatments and evaluation of materials used in conservation. Finally administration is responsible for documentation and photography.

The conservation hospital's special focus areas are: intangible heritage conservation: paper mounting, bronzes, traditional facsimile production and clocks & watches. The Deputy Head of the conservation hospital sets the conservation plan for staff.

Staff said it was hard to find young people willing to work in the restoration role as an apprentice, for example scroll mounting. He presumed it was the changing wishes of young Chinese away from the idea of a master student relationship.

Conservators are involved in loans to a much greater capacity than any others in China. They are involved in meetings with collection management and the exhibition team. Conservators provide advice on display methods and materials, display conditions such as temperature humidity and light levels. They also treat objects to prepare them for loan.

5.4 Example of list of responsibilities of conservators (Nanjing Museum)

RESPONSIBILITIES OF CONSERVATORS:

- 1. help small museums or distant museums in paper conservation
 - a. the other museum mostly send to Nanjing Museum
 - b. in 2016 did about 40 50 projects for other museums
- 2. Preventive conservation
 - a. They fall under the State Bureau of Cultural Relics
 - b. Then under Jiangsu Provincial Bureau of Cultural relics
 - c. Environmental controls
 - d. Display designs
 - e. Requirements eg glass etc
 - f. Pollution etc pests
- 3. Train staff members and students from outside museum eg in conservation programme
- 4. Professional Development
 - a. Attend seminars by State Bureau of Cultural Relics
 - b. Other institutions in East Asia
 - c. Exchanges with overseas
 - i. Eg: 100 experts came from Japan
 - d. Go overseas eg: UK, US
 - e. Conferences and institutions
 - f. Have conservators come from overseas eg V & A and British Columbia

Museum both studied scroll mounting

5.5 Examples of analytical equipment available in-house to conservators

- X Ray
- X Ray Florescence / XRD
- LIBS
- Ramen Spectroscopy
- Infrared Spectroscopy
- SEM
- Fibre quality analyser
- Chromatography / Mass spectrometry
 - GC-MS
 - UPLC-MS
 - UPCC
- X-CT X-Ray Computed Tomography
- OCT Optical Coherence Tomography

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7. Acknowledgements

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