

Locating and Designing Participatory Conservation in the Museum: an analysis of Chinese practices

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Abstract: With rich cultural heritage resources, there are increasing expectations and demands about engaging the public with conservation in China. This thesis intends to demonstrate the participatory conservation practices that can be enlightening for museum visitors. This paper focuses on the cases of Chinese practices at the Shaanxi History Museum and the Hainan Museum. It explores the aims, design and location of the conservation labs in each setting, and seeks to unpack the physical, intellectual and authority boundaries in this engagement space. The research builds upon the analyses of semi-structured interviews with professionals, individual observations of the two case study spaces, and a wide ranging literature review covering participation, museum space, museology and conservation. The thesis concludes that participatory conservation provides great opportunity and insights to meet audiences' curiosity. This is achieved by opening the professional intellectual space to the public and inspiring people's critical thinking together with their passion to care about cultural heritage. The thesis evidences how both Chinese and European museums care about the visiting experience of audiences and conservation outreach. However, it argues how Chinese museums might be seen to give attention to the security of objects – in terms of having more original work in areas open to the public. Whereas, in contrast, European museums there is a focus on communicating, interpreting and sharing the process of engaging audiences.

Keywords: Public conservation, Museum engagement.

1. Introduction

The existing literature around museology and the theory of conservation has explored the relationship between space, practice and society. Research advances have altered concepts about the role of contemporary museums and conservation. Similarly, several conferences (see 'Catch-22', 2009; University of York, 2014) have discussed and framed the concept of the public face of conservation and how to engage audiences with conservation in different spaces. More recently, cooperation and communication have occurred between European countries and China (ICON, 2018). Terms central to this paper, 'boundaries', 'communicating' and 'understanding', are key touchstones in the vocabulary of contemporary museology, in addition to conservation principles and practices.

1.1. Research Context

A review of the current literature shows that engagement between conservation and the public has proven successful in the UK and USA (via a visual conservation lab, workshops and tour guides). This has been acknowledged in various initiatives, e.g. the conservation exhibition at the British Museum (Morris, 2008; Drago, 2011). The conservation galleries at the Ashmolean Museum (Koutromanou, 2015) and more successful examples are detailed in books by Williams (2013) and Owczarek (2017). However, there are fewer sources from museum studies or conservation studies to explain how participatory conservation might work and benefit the disciplines that have prompted the development. Furthermore, there has been scant literature about engaging conservation over the past 100 years (Caple, 2019). Only two anthologies of articles have been published (see Williams, 2013 and Owczarek, 2017).

Within the relevant research is a MPhil dissertation

(Koutromanou, 2015). Its focus is assessing the impact of a conservation engagement event (conservation display) on audiences in a museum. It makes a valuable contribution on the comparison of four cases, collecting and evaluating the outcomes of visiting experiences. However, that research only refers the cases in the UK context, concentrating on the response from visitors, and does not mention the professionals' perspective or explore the engagement space. Given this, there is a literature gap about the relation between the public and professionals in this scenario, specifically in respect of unpacking the boundaries. This would seem to be the essential part to understand the contemporary conservation role in society, since it may challenge and enhance the current nature of conservation. Hence, beyond the mere conservation performance, moving a conservation lab into a museum's exhibition space, the following crucial question should be considered: where are the boundaries between professions and audiences in the conservation display? Specifically, the boundaries refer to three parts: the physical space; intellectual space and the range of sharing authority.

1.2. Aim and objective of this thesis

This research seeks to unpack the public conservation space in the Chinese museum context. Since most of the existing literature is from western cultures, this thesis endeavours to contribute more insights and knowledge for visible conservation space to framework the Chinese participatory conservation design and location in the museology context. To achieve this, it addresses the aim to further advance our recognition, ethics, and the manner of conservation.

1.3. Methodological approach

The purpose of this thesis is to analyse and clarify the

boundaries of professionals and audiences. This is done to explore the physical and intellectual boundaries in addition to how authority is shared with the public and to what levels. To do this, two cases (Shaanxi History Museum and Hainan Museum) are the research samples to find unique materials and first-hand viewpoints. As such, I decided to approach the research using the following qualitative methods:

Observing the physical space of conservation display in each museum

Semi-structured interviews with conservators involved with the conservation display in the public spaces of each museum

According to Bell (2010, p. 8) the case study approach can be “particularly appropriate for individual research because it provides an opportunity for one aspect of a problem to be studied in some depth”. Whilst it could be argued that quantitative research should be considered in this research through surveying audiences, due to the practical limitations of time and a word count, the chosen focus has been on qualitative research.

1.4. Semi-structured interviews

A face-to-face semi-structured interview was conducted with a participant in the Shaanxi History Museum. The interviewee was a member of staff in the conservation department, who has been involved in designing and managing the conservation display and is a senior conservator (Xuan Lu). The interview lasted for 45 minutes.

The second interview was also a face-to-face semi-structured interview with a conservator (Chunlei Bao) from the conservation department at the Hainan Museum, who has responsibility for the space. This was a 30-minute interview.

The third interview was with senior conservator Peichen Zhang from the Shanghai Museum, who currently is working to a timetable to build a public conservation lab. This was a 15-minute interview.

The reason for choosing semi-structured interviews is that the participants are professionals as well as the author’s peers. Furthermore, they have rich experience in the realm of conservation display. Bloomberg and Volpe (2016, p.154) considered that interviews provide “rich description”. In addition, this process provided more professional steps to connect with my research and allowed respondents more freedom to share their experience, insights and lessons.

1.5. Theoretical context

To address the thesis topic, it is necessary to broadly draw on literature across disciplines including sociology, museum studies, conservation studies, science studies and anthropology. This will enable building the wider picture of conservation display and engaging conservation. This chapter has three threads from which theory and insights might be woven. Firstly, it is necessary to understand where these places are (museum space as public area where create knowledge). Secondly, understanding who these spaces are for (museum space engages audience) is required. Finally, this work seeks to understand the purpose of the spaces (exploring the principle of conservation and conservation outreach). This is to demonstrate it to be a vital and emerging topic for both conservation studies and museum studies.

2. Physical Boundaries

The previous chapter has identified the key contexts of

public and space; space and engagement; public face of conservation. From this we can see the role that concepts such as boundaries between professionals and audience have in this discussion. With these thoughts in mind, and equipped with these ways of approaching conservation spaces critically, the following three chapters now highlight types of ‘boundaries’ that might be seen to exist in two Chinese case study museums. Our first discussion here focuses on types of physical boundary.

As part of museum exhibition space, the conservation lab is special in design and management. It is set up as an experimental space for generating knowledge, with opaque walls being replaced by transparent ones, and expanding the object space of the laboratory to accommodate those who conduct, display, explain, and focus on the work. Finally, a signpost space was created where visitors can discuss and interact. Based on my observations at two museums in China, the overall structures and designed space are shown in Figures 1 and 2.

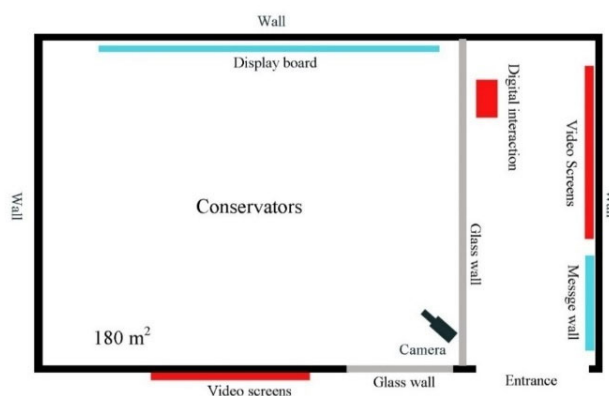


Figure 1. Schematic diagram of conservation display space in Shaanxi History Museum (photo produced by author).

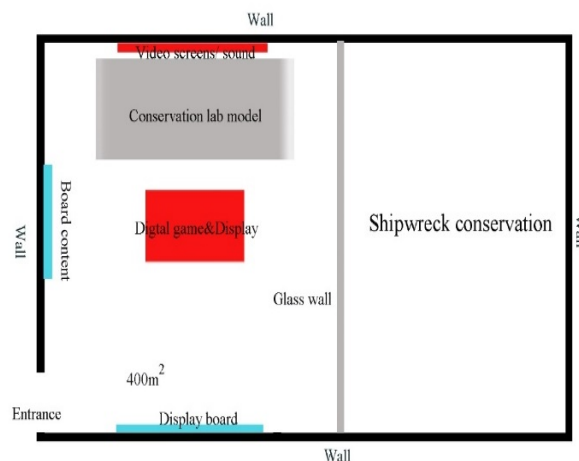


Figure 2. Schematic diagram of conservation display space in Hainan Museum (photo produced by author).

In my research observations, the bright, purpose-designed and purpose-built facilitated space aims to be a conservation outreach programme, designed in a people-centred way. The audiences have free access to observe the conserving scientific activity and conserving-restoring work in the transparent studio, by looking, observing, glancing and even recording as they wish, though the glass wall (Fig 3).



Figure 3. A physical transparent wall separates the workplace and audience area (photos produced by Shaanxi History Museum).

In addition, the digital interaction equipment provides comprehensive details of the conserving activities as conservators work in groups or individually (see Fig 4). Although audiences are not allowed full access to physically touch or enter the working area, the camera controlled access that audiences have means they can observe closely by zooming the cameras to look every corner and detail of the objects. For instance, how paint is touched up can be clearly seen. It is suggested that glass walls are used to control the environmental conditions, thereby preserving delicate objects, such as paper, lacquer and silk. Similarly, with the British Museum, conservators had to select un-sensitive material objects when engaging audience conservation in an exposed exhibition area environment (Drago, 2011), due to the glass half wall in the exhibition hall.

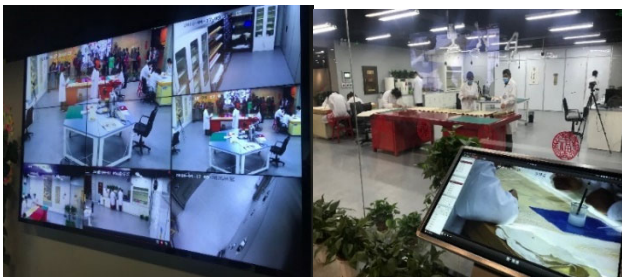


Figure 4. The digital observation interaction area for audiences (photo by author).

The design of physical boundaries has great influence on visitors' experiences. To both keep objects safe and provide a great visiting experience, balancing the positive and negative of using a transparent wall will have impacted on the space. For example, both the Shaanxi History Museum and Hainan Museum used the top-ground glass wall as the barrier. This method probably does not attract audiences as much as possible, due to blocking the communication opportunity, although it does avoid unpredictable events during the visible conservation activities. However, in European contexts, preliminary information about visitors' experience, from a report on the open research laboratory at the British Museum in 2008 (Drago, 2011), states there is a setting designed for discussion that is over a glass counter, which allows people to observe, interact and ask questions directly to a conservator. It is designed to strengthen the space for communication and discussion.

The Shaanxi History Museum has digital communication equipment to meet the aims of providing a channel for talking and communicating. However, this does mean offering access to the public that will potentially disturb how the conservation studio operates. If audiences can access and enter the area

freely, this is likely to bring some disruption.

'Xuan Lu stated that previously there was a walkie-talkie to directly talk to conservators inside the glass room, but this function was stopped because the conservator felt that it was interfering with the work.'

Interestingly, at the British Museum (Drago, 2011), the conservator's response to the outcome of communicating with the public was that the environment was too noisy for them to talk; a quieter space for communicating and discussing is preferred.

The displacement of conservation space and social responsibility to museum settings will need to consider how to redefine a space's function to achieve the redesign and further advancement. A so-called performance space was referred to by Xuan Lu. In fact, the aims of the conservation outreach space are not as an exhibition, live show or display. Rather, the design purpose at the Shaanxi History museum was stated by Xuan Lu as follows:

'At the beginning of the design, such a space was not designed and defined as an exhibition to bring some flavour to the audience, but to demonstrate the real, general and common working state, that is, conservators do not want to show off their skills on purpose.'

Interestingly, there is a concern from Ashley-Smith (2006) that conservation practices have high standards with handling skills and offer fewer opportunities to maintain and learn. This leads to the scenario where there is a loss of appreciation by museum managers and conservators in European contexts.

Lewenstein and Bonney (2004) suggested that human activity and display processes are difficult in a museum environment. In fact, the Shaanxi History Museum conservation lab was designed to highlight the significance in the process of conservation and restoration more than the value of the museum objects. A content board in the conservation lab demonstrates the difference between pre- and post-restorations (Shaanxi History Museum, 2014). This is to help audiences understand what conservation is and how it relates to cultural heritage.

The Hainan Museum has similar aims, concept and design to the Shaanxi History Museum. Space has been designed as a working area, open for public observation. It has been relocated in a behind-the-screen working area for the public. Then audiences have access to look through the glass wall and find details of the conservation and objects from the content board. In the interview with Chunlei Bao, he stated:

'The exhibition hall area is 400 square meters. The area displays the live conservation with the shipwreck in the transparent conservation studio, and there is a monthly demonstration showing the process of changing the water to conserve shipwreck.'



Figure 5. There is a physical transparent wall with a no entry sign that distinguishes the area of workplace and audience area (photo by author).

Morgan (2008, p.38) argued that professionalization and amateurisation are not merely historical processes, but also ones that happen in everyday practices to demarcate specific identities. Having permission to connect to the museum's private space, the public would understand the difference between public and private, but this is not due to the transparent glass dividing the line. For example, in the Hainan Museum (Figure 5), the working area is locked with a no-entry sign on the glass wall, which reminds audiences about their access rights and indicates the different professional and public spaces.

Even if the public have full access to be involved with conservation activity, they retain the individual perspective and do not cross the boundary. For instance, in the Shaanxi History Museum activities, audiences had full access to enter the space, whilst conservators arranged the conserving activity and education programme. In the interview, Xuan Lu stated:

'There is gradually an open conservation lab activity each season for education purposes. By using replicas instead, we let the audience use the entire space, experience the restoration work, and feel the professional working environment.'

That is only a taster game. There are similar activities at the Hainan Museum. It is argued that it seems to be less interactive and more thought-provoking and enjoyable. The difference is that audiences are not allowed to access the real conserving area, instead they undertake specific activities in other areas. Chunlei Bao stated:

'The target audience for this exhibition area is the local youth and student groups, during the summer holiday period. Conservation related experience activities will be carried out in another area of the museum.'

This present work argues that such a special space is considered the best one for conservation education. However, summer camp activity may not make good use of this open exhibition space. It is likely to create numerous unpredictable misunderstanding matters in the engagement activities.

As discussed in this section, the key findings of my research have revealed that the public has access to look at the working area or be involved in a designed activity of conservation in the working area. This is advantageous in facilitating the public to understand conservation. The physical lines in the space are easily identified and unpacked but knowledge lines are more blurred.

3. Intellectual Boundaries

The knowledge boundary is an abstract line to divide groups in a spatial and material process. In Morgan's (2008) social research on identifying the boundaries between amateurs and professionals in museum contexts, it was concluded that the boundary is not only abstract lines that divide people or activities but the lines are 'thick' and heterogeneous. In addition, Morgan states 'Putting research and researchers on display inside a museum means rethinking and reorganising the laboratory's material and social architecture' (Morgan, 2011, p.270). In fact, in a museum context, it is considered that the boundaries are the intellectual access to both the museum objects and the conservation practice. In the interview, Chunlei Bao, stated:

'The public understanding of conservation, increased intellectual access to conservation sparking more interesting in it within the museum community group in recent years.'

When the knowledge boundaries are likely to be considered

as generating people's curiosity, this can be utilized to continue attracting audiences outside of the museum community, which is considered the mystery of conservation.

The conservation and restoration of museum objects is currently of great appeal to audiences, in terms of the mystery of objects, methods of conservation and the equipment. Research into both the Chinese and European museum contexts (Koutromanou, 2015; Drago, 2011) shows that curiosity is the major effective element to encourage audiences, generate attention and engage the public. More specifically, when what was mysterious is used to attract audiences and is unpacked, it can enable museums to keep attracting audiences to care about conservation. Instead, what the space really aims to provide to the public requires further consideration.

To reduce misunderstandings and encourage curiosity in public areas, museums need to take the opportunity to build close connections with audiences. Direct communication is likely to improve the cooperation and understanding of this situation. Xuan Lu described the methods used at Shaanxi History Museum:

'To organise the public's communication time, the conservators working inside come out to answer and resolve the cognitive differences in knowledge and needs in terms of audiences' knowledge.'

Similar issues have occurred in European countries. There is an internal problem that conservators may have challenges in communicating with the public (Brooks, 2008).

Lowenthal (1998) stated that conservation is a sort of tool to sharpen the values which are embedded in heritage. Arguably, there is similarity in the process of showing conservation processes and contributing value to museum objects. Returning to the fundamental duty of a museum, generally it endeavours to attract and allow audiences from all stages of life to be involved in the space and gain the engagement. This, understandably, can result in different levels of incomprehension during the design and establishing a visible conservation studio for the public. Such incomprehension could come from the public, but also from professional teams.

Xuan Lu stated that: 'not everyone supports the project to open the conservation space to public, even some experts are against it.'

However, as conservation ethics, theory and practices have advanced over hundreds of years, it should no longer be behind-the-scenes. Conservators being isolated cannot meet the needs of the significant museum boom in China.

Xuan Lu stated: 'conservators have the responsibility to provide education and share the knowledge found in heritage objects to many audiences from across society, because that is also the museum's responsibility.'

In terms of authenticity, this is likely to widen the knowledge gap between professionals and the public. A museums objects' authenticity is a general matter for visitors and professionals. These worries may influence conservation outreach activities. Due to audiences' different backgrounds, the intellectual gap seems to increase. During my observation in the Hainan Museum, I found some audiences have doubts about the authenticity of the museum objects, and are confused about what is real. They may question the authenticity of the conservation space. In Koutromanou's (2015) audience research, issues about objects remain the most concerning and interesting. Furthermore, in respect of how to define what authenticity is when undertaking

conservation work in the open space, Xuan Lu stated that:

‘At the beginning of the space design, the purpose was to enhance the interest of the audience during the visit, and to ensure that the conservators showed real and common work.’

He further argued that: ‘if the conservators stay in this public space for a long time, it will greatly affect their mentality, and even may cause their work to become a performance without consciousness.’

There seem to be a couple of barriers in the process of bridging the knowledge gap between professionals and the public. Koutromanou (2015, p.174) believes that the ‘Intellectual access was also linked to issues of transparency and was thought to be the responsibility of the conservators and the museum to facilitate it among visitors’. Museum professionals and conservators have undertaken much work on how to make topics clear and understandable for audiences visiting exhibitions.

Recently, digital equipment has been considered probably the most effective and direct in terms of interactive, learning and thinking tools in a museum context. In the Hainan Museum, there is a feature called ‘match the 3D model’ to play in relation to the ceramics undergoing restoration via a digital interactive screen (See Figure 6). The middle showcase demonstrates the restored objects and can be considered as the conservation achievement display.



Figure 6. The digital game and physical display for audiences to interact with restoration (photo by author).

Arguably, the display probably just shows aspects of common knowledge, such as how to play with a jigsaw. Unfortunately, it is not able to reach the point whereby it would help audiences to understand what conservation is or how professionals make the objects for a museum. This could be exacerbated in that it might cause confusion for audiences, as the conservation may appear simple or straightforward but this does not reveal the complicated decision-making processes or scientific processes of analysing materials and the ethical issues related to objects. The argument from Apollo (2018) on European cases, is that in a visible conservation lab, it is difficult to obtain any reward when watching the conserving process passively rather than interacting with conservators. As such, it is essential to bridge the cooperation and communication between professionals and the publics.

There appears, in conclusion, to be a value and aims for the activities that are designed to provide intellectual access to an

unknown space, which can be considered enjoyable. The space is designed to provide the knowledge content to satisfy the public’s curiosity, to encourage audiences to think critically, to generate a passion to conserve the heritage environment, culture and objects. In fact, the methods may be less effective when the focus is on providing more knowledge and creating the opportunity of contributing ideas or publishing individual voices’ power of being engaged in the process of conservation outreach.

4. Boundaries of Authority

Having discussed the physical and intellectual aspects of the connections and boundaries between professionals and audiences, this work now turns to the more political, dynamic and contested aspect of the authority provided to the public that is shared and engaged with.

Many museums around the world have realized that the power of sharing authority is when it can meet the needs of an institution and society. It is considered the key to meeting museum goals, providing public good and responding to relevant social issues (Duclos-Orsello, 2013). In terms of participatory conservation, this is likely to be considered as sharing the uncontested professionals’ power and authorities with the public in the process of relocating a conservation studio.

Pye & Sully (2007) discuss the perspective of democratic conservation, which has engaged the public to define heritage, and how to conserve it. The demands and outcomes seem to meet the development needs of a contemporary museum. The example from the Shaanxi History Museum, illustrates that Xuan Lu intends to cross the authority boundaries, to bring power, knowledge and human resources into conservation.

‘To arrange the highly skilled conservators from behind the scenes to the front, one of the purposes is to attract audiences. The other is to find experts outside of the museum, hoping that external professionals can provide concrete help and even participate in work or projects.’ (Xuan Lu)

As early as in 2013, there was a temporary visible conservation lab exhibition at the Shaanxi History Museum, named the ‘High-skilled Heritage Doctor’. It has framed a model of ‘conservation observers’, with multidisciplinary people engaged to undertake the work, to observe and provide knowledge to support the conservation (Shaanxi History Museum, 2014). These people were not museum staff or conservation experts but people with background knowledge including chemistry and physics.

The exhibition is to meet the public’s right to know about how conservators protect cultural heritage, represent the responsibility of a museum to share the knowledge and authority, and raise stakeholders’ social attention to heritage conservation (Shaanxi History Museum, 2014). Koutromanou (2015, p196) concluded that ‘Encouraging the involvement of people with different stakes and views on how conservation should be carried out can potentially reshape and enrich our understanding and experience of objects and their multiple meanings’.

Furthermore, providing the authority and power to involve large audiences cooperating with museum professionals could mean the general boundary between professionals and the public will become blurred. In some cases, there may not be any boundary. The term ‘amateur-experts’ has been used by Waterton (2003) to describe this hybrid of identities who can cross the intellectual boundary and the partial authority boundary, but not the physical one. In the interview,

conservator Xuan Lu, stated that:

‘There was a case when a carpenter saw that there was a wooden conservation in the visible conservation studio. He believed that the protection and restoration of the traditional Chinese furniture displayed at that time did not conform to his understanding and knowledge system, and he told the staff about the various problems of the work, trying to express own opinion.’

In such a situation it may not be clear what professionals should do. The carpenter can be considered an ‘amateur-expert’ from outside the museum. His knowledge and voice cross the museum authority boundaries, with professionals being challenged to answer a member of the public’s confusion or even protest. Thus, it is worth considering how the museum should undertake to resolve this matter and turn it into a driving force that can promote the protection of cultural heritage. Arguably, given the aims of the visible conservation lab in Shaanxi History Museum (2014), the ‘supervisor’ of cultural heritage is the public. As such, involving the power of the public about who can supervise the objects under conservation, means audiences are able to judge and point out errors. However, it is argued by Fan (2014) that the community (the public) do not have opportunities to be involved in the decision-making for cultural conservation because of the power from government.

In some cases, balancing cooperation between professionals and the public may be key to advancing the development of conservation outreach. As knowledge and authority power are likely to be an unpredictable scenario, in my interview about the Chinese context, Xuan Lu argued that:

‘There is a key step in the restoration of ancient Chinese paintings and calligraphy – to uncover the heart of painting. This work cannot be done with professional gloves, because the work will be disturbed by the gloves. Professional conservators usually undertake the process without gloves. However, when the work was displayed in front of the public, the public believed that the work was unprofessional and the conservators should wear gloves.’

Interestingly, it will never be possible to observe the process of ‘uncovering the heart of a painting’. Due to the public’s misunderstanding, the museum omits the process or finishes it behind the screen. The public represent the non-professional comments which means ‘people’s right to impose their views is proportional to their involvement’ (Muñoz Viñas 2005, p.161), arguing that professionals cannot abandon the authority due to encouraging more audiences into a museum. As such, there is an oversharing of the voice of authority. Museums need to show professionalism including the responsibility of telling the truth to the public, since to do otherwise could mean that the solution would be considered as not being in line with the duty of professional work.

Nevertheless, it is a challenge to meet all the needs of audiences. Not everything that conservators do is visible or shared with the public. Generally, there is a boundary drawn between the conservator in the private conservation lab and audiences in the museum’s public space. More significantly, even in a private space the conservation activity might not be visible, for example, thinking, planning, analysing, evaluating or using specific materials during the conserving process.

A museum may intend to share authority to attract audiences, however, crossing the boundary is an objective phenomenon, arising when the authority is shared with the public. Xuan Lu stated:

‘Our visible conservation lab is just to bring the behind-

the-screen space to the front, to show the real working area and process. We did not intend to give the audience more authority to communicate in this public space, but the fact is that lots of people want to ask questions and create their own thoughts and even challenge the professionals.’

The more open time and details, the more criticism and challenge there might be. Both the previous examples from the Shaanxi History Museum directly impacted and challenged the confidence, knowledge system, and professional barriers that museums and heritage conservation experts originally possessed. However, that situation did not occur at the Hainan Museum. In the interview with Chunlei Bao, he did not think the audience had any thoughts or challenges that would affect the professionals’ work.

The basis of the situation entails showing research settings, research tools, researchers, and providing opportunities to discuss the work and motivations of researchers. However, it does not necessarily mean that a level of power and expertise between the museum and researchers and visitors is reached. In the museum, visitors are still positioned as laypeople and recipients, not as knowledge producers (Morgan, 2011). Furthermore, the aim of conservation display does not eliminate the knowledge distance that exists between professionals and the public; it does not aim to transform audiences into professionals. ‘Conservation cannot afford to model itself as a self-evident valuable activity that needs no justification. We need to demonstrate our role in preserving culturally significant artefacts and bringing the knowledge obtained through that process into the public domain’ (Brooks, 2013, p.5).

The key findings detailed in this discussion are that an interactive, social and knowledge space can offer audiences a voice, power and opportunities to challenge the authorities. However, it could be considered inspiring for conservators to rethink the role of identity, to improve the professionalism and confidence in their skills.

5. Conclusion

This thesis has discussed the positioning and design of open conservation laboratories in Chinese museums. The findings are that in museums where the concept of class is vague, the line between professionals and the public becomes blurred. This work has sought to distinguish the relationship between the professional conservators and the general audiences, together with defining the physical boundaries, knowledge boundaries, and discourse power of this space. The division of boundaries has used the main findings based on two interviews with professionals, the researcher’s observations and literature reviews about the European context. Based on analysing existing Chinese cases at the Hainan Province and Shaanxi History Museums, the positive and negative aspects have been considered and evaluated with three key aspects having been discussed.

The first was the physical boundary between the audience and the professionals in the exhibition space. That is, which spaces audiences can enter, what they can or cannot touch or come into contact with. This section has revealed that audiences have limited access in this space. There is a benefit for the public in that they can watch the usual conservation work through the transparent glass wall. They can understand the content of conservation through the form of display cabinets, digital cameras, and information display boards. The space can be effective in helping the public to know and understand conservation.

Secondly, the thesis has discussed that the differences between the knowledge of the public and professionals are generated in this space but are not solved. When audiences watch restoration work through the glass wall, this may generate knowledge curiosity. However, this is a less effective method in respect of filling the knowledge gap between professionals and audiences in this space.

Thirdly, balancing the range of sharing authority is the key method to engage audiences. This section has analysed the process of sharing knowledge power as an engaging method in the museum context. The authority is challenged by the power from outside the museum also putting forward opinions and challenges to the method of conservation, potentially even giving criticism and judgment. This drives conservators to concentrate on the professionalism and confidence in their skills.

This research has also highlighted how there may be differences between the visible conservation labs in European countries and those China. This is not only in space design and display content, but also the purpose and attitude of the display. Through a literature review of existing exhibition experience and research in European countries, both Chinese and European museums contribute to public engagement, but differ in the value of heritage objects and aims of the space. A full glass wall reduces the communication access between professionals and the public in China, offering fewer opportunities to provide hands-on activities that might increase audiences' interest. Berducou (1999) argued that a more adaptive method to preserving heritage objects is not to hide them, but rather to offer more access to the public who care about heritage. In a European context, the half glass wall at the British Museum (Drago, 2011) provides good communication conditions for the audience and the conservator. From this point of view, the open conservation space provided by the European museum enables audiences to communicate with conservators efficiently. It might be concluded, therefore, that Chinese museums tend to design the space as a working area more than a communication space. Whereas, in contrast, European museums make the space more interactive and engaging as a contact zone rather than a working area.

In addition, this research contributes to the literature. It has explored the mechanisms, design and location of participatory conservation in the Chinese context. It has found that when creating the primary style, there is a need to offer a foundation for advanced development, for example in the form of comparative and analysis studies between different types of conservation labs in China.

The qualitative research was carried out successfully to collect data by face-to-face interviews with two conservators who are involved in participatory conservation in China. The data analysis demonstrated the design ideas and location in the two Chinese cases. The aims of participatory conservation being organized and developed in China are that more visible conservation labs are expected during the museum industry boom in China.

The practical aspect of this paper has been to interview the senior conservator Peichen Zhang who works at the Shanghai Museum. There is a plan to build a new museum with a 500m² visible conservation lab space for the public. This project is at the design phase. Peichen Zhang stated:

'As the one of the best Chinese museums, the ambition and design is forward-looking and open. The aims of building the conservation lab are not only designed as for disseminating

and education purposes as a conservation studio but also to construct a participatory and interactive space for the general public.'

There are two main limitations to this paper. Firstly, the limitation of time, and the research angle has been limited to the focus of space design and positioning. Researching public engagement was particularly challenging methodologically and time consuming. However, the audience feedback, cognition, and interactions merit further in-depth research. This project has explored the role and expectations of this space, but how to quantify the effectiveness of the museum space in conservation and how the public understand conservation in a museum context will be the future research step. Secondly, the range of qualitative research lacks supportive cases to explore and research, thus future research would be more robust with additional samples.

To conclude, this paper has examined the boundaries of professionals and the public in open conservation labs within the Chinese museum context. The evidence proves the difference within similar framework of conservation lab in different cultural context, which represents the different designed purpose in museum and inspire future research of participatory conservation in a wider international context.

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