

The Experience of Setting up Postdoctoral Research Stations in Museums

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Abstract: *With the improvement of Chinese postdoctoral system and the development of museums, setting up postdoctoral research stations in museums will become a new way to train and cultivate researchers in the field of cultural and museology. Different from enterprises, universities and other institutes, the museum is featured in its own way. Therefore, research stations managers need to explore for a postdoctoral management system which suits their practicality in long-term. Based on the experiences of constructing postdoctoral research stations in museums, this paper discusses the necessity of establishing postdoctoral research stations in museums, the training mode of postdoctoral and approaches in management.*

Keywords: *Postdoctoral management; Museum expertise training; Postdoctoral research station; Museum*

1. Introduction

Talents are the core element to improve the service level and development ability of museums. More and more museums are also exploring how to establish a reasonable talent training mechanism in business practice. As one of the first museums to set up postdoctoral research stations, the experience of postdoctoral personnel training and management of the Palace Museum may provide some reference significance for cultural and cultural units.

2. The necessity for museums to set up postdoctoral research stations

In recent years, China's cultural and museum industry has developed vigorously, but museum talents are still in short supply. The outstanding performance is three points. First, it is difficult to introduce professional talents, and many museums have the problem of "people who want to get in". Second, professional talents cannot be retained, and some practitioners change jobs due to salary and promotion issues, resulting in the loss of museum talent resources. The third is the shortage of professional researchers, and the unreasonable structure of talents and academic qualifications^[1], which directly leads to the loss of museum talents. Faults have even made some research fields almost "unique". Therefore, the talent training mode of museums urgently needs to be innovatively developed, and the establishment of postdoctoral scientific research workstations is an exploratory step taken by museums. The museum's talent dilemma is to some extent related to the nature of the museum as a non-profit institution, and the postdoctoral system has the characteristics of mobility and flexibility in terms of staffing and treatment, which is also a supplement to the museum's employment system itself. The postdoctoral group is mostly young researchers aged 30 to 40. They have received academic training at the doctoral level and have developed a certain independent scientific research ability. Some of them also have multidisciplinary academic backgrounds. The characteristics of independence, innovation, and intersectionality can make up for the imbalance in the museum's talent structure to a certain extent, and inject new development momentum into the museum's academic research.

In May 2021, the "Guiding Opinions on Promoting the Reform and Development of Museums" jointly issued by the State Administration of Cultural Heritage and other units clearly stated: "Improving the incentive mechanism for museum talents, commending and rewarding in accordance with relevant state regulations, strengthening museum management talents, professional talents, Research talents, cultivate innovative talents, and create a good institutional environment for talent development"^[2]. Shan Jixiang, the former director of the Palace Museum, pointed out the importance of museum talent construction at the opening ceremony of the Palace Museum Postdoctoral Workstation:

"For a museum, it is easy to build buildings, collect collections, and obtain funds, but the need for outstanding talents Convergence cannot be achieved overnight, it must go through very arduous efforts"^[3]. In Shan Jixiang's view, the biggest gap between museums is not in the hardware facilities, but in the concept of running the museum and the construction of talents. If a museum wants to innovate and develop concepts, it cannot do without the support of a solid talent team. Therefore, it is very necessary for a museum to establish its own think tank to provide a strong backing for its own academic research and sustainable development.

The development of museums is based on things (collections) and driven by people (human creativity). Things and people are an inseparable whole. The development of museums is the dual development of things and people. If the regenerative nature of resources is used to compare people and objects in museums, objects are unique and precious in terms of physical characteristics because of their additional attributes such as aesthetic value, scientific value, and historical value. They are non-renewable resources, while renewable resources themselves It has a broader meaning: first, the added value of objects can be explored and utilized more deeply, which needs to rely on the basic functions of museums; second, the initiative and innovation of people are the objective factors to maintain sustainable development. The development of human resources is actually the secondary development of added value. "Human resources are the most dynamic resources among all kinds of museum resources, and they are the central resources for all kinds of museum resources to exert their best effects"^[4]. In recent years, the operation mode of "museum +" has emerged in the cultural and cultural circles. Museum + cultural creative products and museum + public education have flourished, while postdoctoral research workstation can completely serve as an internal incubator for museum + high-end personnel training, and become a new mode for museums to improve their sustainable development ability.

3. The establishment of a talent training model for museum postdoctoral scientific research workstations

At present, only a few cultural and museum institutions such as the Palace Museum, the National Museum of China, the Capital Museum, the Shanghai Museum, the Chengdu Museum, the China Agricultural Museum, and the Hunan Provincial Museum have set up postdoctoral scientific research workstations. Exploration stage. Compared with mobile stations set up in universities and workstations set up in enterprises, postdoctoral scientific research workstations in museums have certain particularities. University mobile stations are mostly set up by disciplines, focusing on the research of basic theories of disciplines, and are more prominent in the academic level of cooperative tutors and research in advantageous disciplines; enterprise workstations pay more attention to technical and applied research to improve actual benefits. It has certain advantages in terms of transformation and utilization of achievements. Since most museums are non-profit units that provide services to the public and also undertake academic research functions, the scientific research orientation of the museum scientific research workstation is consistent with the academic orientation of the museum itself, that is, it radiates to multiple related disciplines and research fields centered on the collection. Strong intersectorality, the objects and results of academic research run through other museum businesses such as collections, exhibitions, and public education. Compared with mobile stations in colleges and universities, its research focuses on the combination of museum collections and business. Its nature as a public welfare institution also means that compared with enterprises, its source of funds and capital flow will be restricted to a certain extent, while training funds Insufficient investment is precisely one of the problems that has restricted the development of many postdoctoral sites for a long time. Museums should first establish an effective financial support model and set up special training funds for postdoctoral fellows. The "Opinions of the General Office of the State Council on Reforming and Improving the Postdoctoral System" puts forward suggestions for safeguarding measures to encourage social funds to invest in the postdoctoral training process^[5]. Museums can try to establish a diversified postdoctoral funding mechanism, strengthen cooperation with social capital (such as enterprises, foundations), and provide financial support for postdoctoral fellows.

The premise of cultivating talents is to find talents. How to select and attract outstanding talents to engage in postdoctoral research is an important link in the construction of scientific research workstations. Some units only pay attention to the number of postdoctoral recruits after obtaining the qualifications to set up a station, while ignoring whether the unit's scientific research resources can effectively carry out and maintain this training mode decorations. Therefore, before launching the postdoctoral recruitment work, it is necessary for the museum to conduct an inventory and evaluation of the unit's advantageous research directions, key research directions, senior expert appointments, and

progress of scientific research projects, and formulate a postdoctoral recruitment plan. The museum should select a group of experts with certain academic authority in various research fields based on the academic development plan of the unit, and they will serve as postdoctoral cooperative mentors, and establish a cooperative mentor bank. They should undertake some cutting-edge scientific research projects, so that postdoctoral fellows will have the opportunity to get in touch with specific research plans after entering the station, and carry out relevant research based on project topics. After publishing the postdoctoral recruitment brochures, the leading role of cooperative supervisors and other experts in talent selection should be fully utilized. An interview team composed of experts will conduct a comprehensive inspection and evaluation of postdoctoral academic levels. First, pay attention to their past scientific research achievements (reflecting their research level and potential), and second, examine their future research plans (whether they meet the actual needs of the museum), so as to ensure that outstanding talents can enter the talent pool of the museum. Of course, recruiting talents should not blindly "seek more and more perfection", but "seek refinement and perfection". The quantity and quality of postdoctoral fellows are the yardstick for measuring the construction level of scientific research workstations.

After entering the workstation, postdoctoral fellows will devote themselves to research work. Their research plans should be closely integrated with the scientific research goals of the museum, which can not only provide academic support for participating projects, but also provide academic accumulation for writing outbound reports and academic papers, which is why they are encouraged to participate in the work of the scientific research project team. In the process of postdoctoral training, it is also necessary to clarify the dominant position of the cooperative supervisors as academic instructors and academic managers scale of power. In addition to encouraging postdoctoral fellows to actively participate in various academic exchange activities and write academic papers, the establishment unit should also make full use of the museum's own scientific research platform to support postdoctoral fellows to participate in business practices related to research topics, and at the same time strengthen the accumulation of postdoctoral scientific research achievements, such as preparing a separate work briefing or establishing a postdoctoral library, gradually accumulating a postdoctoral exclusive academic resource library. In view of the relationship between academic research and professional work in museums, postdoctoral stations in museums should overcome the disadvantages of "emphasizing training over use" and "emphasizing use over training" in some postdoctoral stations, strive to "cultivate while using", find the balance point between postdoctoral participation in professional work and academic research, and pay attention to avoiding the above-mentioned disadvantages of "emphasizing both and neglecting both." It is also necessary to fully combine the new trend of the development of the cultural and cultural industry in recent years and the development planning of the station-setting museum to find the post-doctoral orientation.

4. Management of museum postdoctoral scientific research workstations

Postdoctoral management work can be divided into two categories. One is to manage scientific research and academic content such as entry, topic opening, mid-term assessment, and exit. This is also the core function of the management department, mainly assisting and supervising postdoctoral fellows and cooperative supervisors in the administrative process to complete the academic goals during the station. The other is about additional management tasks such as household registration, wages, funds, and logistics support, which often need to be completed in cooperation with other departments of the station-setting unit. The daily work of the management department mainly focuses on executive functions such as organization, command, and coordination, as well as assurance functions such as supervision and adjustment, and plays the role of liaison and supervisor. It has both planning and flexibility. To escape from the complicated work tasks, it is necessary to reasonably arrange the postdoctoral work content from entering to exiting the station, and incorporate the postdoctoral management system into the administrative operation framework of the entire station setting unit. It should be noted that the postdoctoral management department is not the only participant, and it also needs the cooperation of other departments in actual work. Taking the postdoctoral scientific research workstation of the Palace Museum as an example, the department mainly responsible for postdoctoral management is the postdoctoral management department of the scientific research department, but in the specific work, it is also supported by the personnel department, finance department, budget department, administrative department, legal department, labor union, etc. departmental assistance. Institutions with a large number of on-site personnel and qualified units can conduct special management for postdoctoral fellows (that is, set up a separate department and assign designated personnel to take charge of it). The department is set up under the scientific research department or

academic committee of the station-setting unit, or it can be set up in the personnel, administrative and other departments, but the premise is to ensure the efficiency and quality of management work and establish a smooth and efficient communication mechanism between departments. Postdoctoral self-management and cooperative supervisor also play an important role in the whole process of postdoctoral management. The postdoctoral management department should provide corresponding training for postdoctoral fellows and co-supervisors, and inform them of the key process nodes and precautions, so that they can clearly understand the tasks they need to complete. For example, the Postdoctoral Management Section of the Palace Museum handles the entry procedures for postdoctoral fellows from August to September every year, and holds a thesis opening demonstration meeting from March to April of the following year. Postdoctoral fellows and cooperative supervisors need to complete tasks within the specified time and submit deliverable results to the postdoctoral management department (such as signing a scientific research contract when entering the station, submitting a proposal report, etc.). This is actually to use the deliverable results of each stage of the management work (that is, each work task can submit a clear result within a fixed time node) as the supervision yardstick, and decompose the management tasks into a process that is jointly executed by the manager and the managed.

If postdoctoral talent training is regarded as a talent investment project, postdoctoral and cooperative mentors are the specific executors, and the management department is the maintenance operator, then the entire postdoctoral training process also has the common characteristics of general projects. (1) Uniqueness: The project will eventually produce non-repetitive results, and the results of postdoctoral knowledge production are also academically innovative. (2) Temporary: the project has a relatively clear start and end time, and postdoctoral work as a temporary academic position lasts for two to six years. (3) Gradual detail: the achievement of project goals needs to be gradually refined and completed in stages, and the same is true for postdoctoral fellows from establishing research directions to specific research plans. Projects produce "differentiated results" in an "uncertain process", so there will be some uncertain difficulties in implementation, slow progress, poor communication, additional capital costs, and other special circumstances. The control factors that need to be considered by the operator form a special case in operation, form abnormal operation management. If reverse thinking is used to compare postdoctoral management, the specific work has the following characteristics. (1) Regularity: postdoctoral management involves a large number of repetitive processes such as entering the station, opening questions, mid-term assessment, and leaving the station. (2) Long-term: as long as the station is set up. The unit has been recruiting postdoctoral fellows, and the management work runs through the entire process of postdoctoral entry and exit. (3) Normative: Postdoctoral management needs to follow the relevant regulations of the superior department and the station-setting unit. These tasks are stable, planable, and can form a routine, which is the so-called daily operation management. Managers should refine the process and key points based on "conventions", summarize and sort out relevant documents (such as "Postdoctoral Entry Guide", "Outbound Precautions", etc.), which will help managers clarify work steps and guide postdocs and cooperation Instructors carry out work efficiently; and for "special cases", experience should be summed up in a timely manner, management files should be established, and an abnormal management and handling mechanism should be formed. In this process, we can learn from the "PDCA cycle model" in total quality management. In the plan (Plan) stage, the management department clarifies the overall arrangement and specific requirements of the postdoctoral fellows to the postdoctoral fellows and their supervisors, which is called the "big plan". The specific research plan is formulated by the executor, which is a "small plan"; in the implementation (Do) stage, the executor conducts research according to the small plan, and the manager conducts daily management according to the large plan. Supervise the key nodes in the process (such as task opening, mid-term assessment, etc.); in the processing (Act) link, special attention should be paid to collecting feedback from executors and handling methods for special cases. Through this cycle mode, managers gradually improve standardized postdoctoral management documents and establish a postdoctoral management system that adapts to the unit's operating framework.

The nature of the work of the postdoctoral management department is both professional and trivial, which requires managers to establish a sense of responsibility, service awareness, and abide by the principles of refined management. "Refinement management is based on the improvement, improvement and optimization of the original management of each unit and link of the organization, focusing on details, processes, specifics, and effects"^[6]. Delicate management is concentrated in two levels of system and execution. As the manager of a scientific research workstation, first of all, he must be familiar with various guiding policy documents issued by official departments such as the Ministry of Human Resources and Social Security, the National Postdoctoral Management Office, and the China Postdoctoral Science Foundation; The basic content and operation process of the system (such as

financial system, personnel system, logistics support system, etc.), in order to provide consultation and service for postdoctoral procedures, improve work efficiency, standardize work procedures, and realize the institutionalized operation of daily work. Only by "knowing the big and the small, knowing ourselves and the enemy" can we establish a management system that not only conforms to the national norms but also adapts to the characteristics of the unit, and provides more comprehensive and accurate services for postdoctoral fellows. Secondly, from the perspective of execution, the nature of a manager's work is both management and service. They should not issue orders condescendingly in their work, but should follow the principle of people-oriented, actively communicate with postdoctoral fellows and cooperative supervisors, and understand their difficulties and needs. This two-way communication process can not only help postdocs solve problems, but also urge the management department to find management loopholes and continuously improve the system.

5. Case Analysis — Taking the Palace Museum as an Example

Let's take the Palace Museum as an example to analyze the training process of the museum's postdoctoral fellows. There are a total of 130,000 oracle bones in Yin Ruins in the world. Among them, the total number of oracle bones in the Palace Museum was roughly estimated at 22,463 in the 1960s, accounting for 18% of the total number of oracle bones in Yin Ruins in the world. It is the third largest collection of oracle bones in the world. However, only 1,440 pieces of oracle bone inscriptions collected in the Palace Museum were included in the Collection of Oracle Bone Inscriptions, most of which were not compiled and published. How to make these cultural relics collected in museums alive has become an urgent topic for researchers to solve. In 2014, one of the major projects of the National Social Science Fund applied by the Palace Museum, the project "Organization and Research of Yin Xu Oracle Bone Inscriptions Collected in the Palace Museum" was successfully approved. Shan Jixiang, former director of the Palace Museum, attaches great importance to this project. He said that in the next ten years, two goals will be achieved. One is to complete the organization of the oracle bones in the museum, and the other is to cultivate a group of research talents. After undertaking the oracle bone research project of the Palace Museum, the Institute of Ancient Documents of the Palace Museum appointed two experts as postdoctoral cooperative mentors to form its own academic echelon. The sub-projects under the project were undertaken by three postdoctoral fellows. In addition to following the project team to participate in various research activities and academic conferences, postdoctoral fellows also joined the project copy group and interpretation group according to their respective divisions of labor, and participated in specific work such as drafting, proofreading, book compilation, and publishing negotiations. Among them, the achievements related to the project are published in the "Palace Museum Journal", "Palace Museum Academic Journal" and other journals.

The postdoctoral training units must be clear that the training and use of postdoctoral talents must not be "high-sighted and low-handed" and "talking on paper". The principle should be comprehensive. Improving their scientific research level and academic output ability is an important goal, but their comprehensive quality must not be ignored cultivation. From the above case, it can be seen that postdoctoral fellows have participated in the whole process of the key research projects of the museum. Their specific work not only involves the writing of scientific research reports, but also extensively invests in field research and specific business work. Their scientific research results are not only their own research direction. The output is also one of the important achievements of the project undertaken by the museum. During this process, they combined their professional knowledge with research projects, cultivated teamwork skills, communication and coordination skills in practical work, and laid the foundation for new jobs after leaving the station. For the display and dissemination of postdoctoral academic achievements, the academic journals in the school have become an important theoretical position. Because such publications are most closely integrated with museum academic research, most of the topics selected for internal publications are related to exhibitions held by museums, academic activities undertaken by museums, special research on certain cultural relics, etc. Therefore, the unit setting up the station should pay attention to the editing work of internal journals, improve the professionalism, forward-looking, and theoretical nature of the journals, and build a platform for academic exchanges within the institute.

6. Conclusion

In the process of building postdoctoral research workstations, museums should clarify their position in the overall academic planning, balance the relationship between the training and use of talents, and

make full use of their own academic resources to establish an incubation base for cultural and academic talents. In the management, museums should not only pay attention to the implementation of policies and the induction of processes, but also pay attention to the communication with postdoctoral and cooperative mentors, so as to enhance the managers' sense of service, and provide solid logistics support for postdoctoral training.

References

- [1] Shan Jixiang. *Analysis of Museum Management*[J]. *Chinese Museum*, 1997, (2), 8-18.
- [2] State Administration of Cultural Heritage. *Guiding Opinions on Promoting the Reform and Development of Museums* [EB/OL]. (2021-05-11) [2022-03-04]. http://zwgk.mct.gov.cn/zfxxgkml/qt/202105/t20210525_924733.html.
- [3] Xinhua Net. Shan Jixiang, Director of the Palace Museum, talks about first-class museums: Buildings are easy to build, but talents are hard to gather [EB/OL]. (2014-02-25) [2022-03-04]. <https://www.chinanews.com.cn/sh/2014/02-25/5881067.shtml>.
- [4] Shan Jixiang. *Management—The Foundation of Museum Success*[J]. *International Museum (Chinese Edition)*, 2016, (1-2), 88-93.
- [5] General Office of the State Council. *Opinions of the General Office of the State Council on reforming and improving the postdoctoral system* [EB/OL]. (2015-12-03) [2022-03-04]. http://www.gov.cn/zhengce/content/2015-12/03/content_10380.htm.
- [6] Ma Xiaolin. *Layered service and refined management of museums*[J]. *Museum Management*, 2020, (01), 12-17.