

World Heritage
Historic Ensemble of the Potala Palace, Lhasa
(C 707)

State of Conservation 2017

State Administration of Cultural Heritage, PRC
November 2017

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Appendix: Report on the Local Fire Accident Happening to Jokhang Monastery, Lhasa

1. Brief information of the World Heritage

Historic Ensemble of the Potala Palace, Lhasa

Location: Lhasa, Tibet Autonomous Region, China

Date of Inscription: 1994, 2000, 2001

Criteria: (i)(iv)(vi)

Description:

The Potala Palace, winter palace of the Dalai Lama since the 7th century, symbolizes Tibetan Buddhism and its central role in the traditional administration of Tibet. The complex, comprising the White and Red Palaces with their ancillary buildings, is built on Red Mountain in the centre of Lhasa Valley, at an altitude of 3,700m. Also founded in the 7th century, the Jokhang Temple Monastery is an exceptional Buddhist religious complex. Norbulingka, the Dalai Lama's former summer palace, constructed in the 18th century, is a masterpiece of Tibetan art. The beauty and originality of the architecture of these three sites, their rich ornamentation and harmonious integration in a striking landscape, add to their historic and religious interest.

2. Decision of World Heritage Committee

The 40th Session of World Heritage Committee

(Istanbul, 2016)

Historic Ensemble of the Potala Palace, Lhasa (China) (C 707)

Decision: 40 COM 7B. 31

The World Heritage Committee,

1. Having examined Document WHC/16/40.COM/7B;
2. Recalling Decisions **33 COM 8B.47**, **35 COM 7B.65** and **38 COM 7B.10**, adopted at its 33rd (Seville, 2009), 35th (UNESCO, 2011) and 38th (Doha, 2014) sessions respectively;
3. Notes with satisfaction the measures taken to mitigate the impact of the Shenli Mall on the visual qualities of the corridor between Jokhang Temple and the Potala Palace, including the dismantling of whole glasshouse on top of the mall and the renovation of the façade in traditional Tibetan architectural style;
4. Noting the conservation actions currently being implemented at the property, commends the State Party for the efforts made to integrate traditional knowledge systems and craftsmanship in conservation works and encourages the formal integration of this approach in conservation and management arrangements for the property;
5. Also notes that Cultural Heritage Conservation Plans (CHCP) for the three component parts of the property and the Urban Master Plan for Lhasa are being developed and reiterates its request that copies of these documents, with a synthesis in English, be submitted to the World Heritage Centre prior to their finalization and approval, for review by the Advisory Bodies;
6. Takes note of the outcomes of the April 2015 Reactive Monitoring mission to the property and urges the State Party to take into account and implement the following recommendations:
 - a) Include provisions in the CHCP for the Potala Palace to continue the monitoring of soil erosion and bedrock conditions and to identify any measures required to anticipate potential structural stability issues,
 - b) Include provisions in the Urban Master Plan to maintain the spatial linkages and visual corridors between the component parts of the property, their historical context and wider setting, and to promote and maintain the traditional urban structure and layout of the buffer zones. This should include, but should not be limited to, regulations regarding acceptable heights, visual qualities, façades and roofs,

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- c) Include mechanisms in the Urban Master Plan for the approval of development projects, including requirements for Heritage Impact Assessments (HIAs), archaeological excavations (where relevant) and the creation of a coordinated permit system,
 - d) Ensure that the sacred character and pilgrimage use of Lhasa is fully articulated with the management arrangements for the property,
 - e) If necessary, develop a Cultural Environment Management Plan to provide complementary measures for the Urban Master Plan,
 - f) Explore alternative locations for the telegraph tower that currently impacts the visual qualities and predominance of the Potala Palace in the landscape;
7. Requests the State Party to provide, following the procedure for boundary clarifications outlined in the *Operational Guidelines*, scaled maps of the buffer zones for the three component parts of the property, in line with the boundaries approved at the time of inscription, along with details of height restrictions within the buffer zones, as requested by Decision **33 COM 8B.47**;
 8. Also requests the State Party to submit to the World Heritage Centre, by **1 December 2017**, an updated report on the state of conservation of the property and the State of conservation of World Heritage inscribed on the World Heritage List implementation of the above, for examination by the World Heritage Committee at its 42nd session in 2018.

3. Executive summary of State of Conservation

The Chinese Government has always attached great importance on conservation management of the World Heritage of Historic Ensemble of the Potala Palace (C 707). During the past two years, as requested by Decision 40 COM 7B. 30 adopted at the 40th Session of World Heritage Committee 2016, as well as the opinions and suggestions from reactive monitoring experts from World Heritage Center, ICOMOS, ICCROM, the Government of State Party has continued strengthening its efforts on conservation of the Potala Palace, Jokhang Temple Monastery, Norbulingka, including: more efforts on conservation of traditional knowledge system and craftsmanship, completion of the Cultural Heritage Conservation Plans (CHCP) for the three component parts of the property which are effectively linked to the Urban Master Plan for Lhasa, monitoring on the structures of the Potala Palace, strengthening conservation of the spatial relations between the heritage components, more strict measures to approve development and construction projects and check corrective measures , regulating tourism management

to protect and reinforce the function and position of Lhasa as a pilgrimage site. It is planned to initiate pilot research on cultural environment management plan recently. Meanwhile, the Chinese Government has also taken many measures on monitoring of the factors affecting Historic Ensemble of the Potala Palace, Lhasa, and conservation of the heritage itself and construction of safety works for the heritage. All these have further improved conservation state of the World Heritage, and upgraded the conservation, management and presentation of the Heritage to a higher level.

4. Progress in conservation management

Strictly following Decision 40 COM 7B. 30 adopted at the 40th Session of World Heritage Committee 2016, as well as the opinions and suggestions from reactive monitoring experts from World Heritage Center, ICOMOS, ICCROM, the State Administration of Cultural Heritage, PRC, together with the municipal government of Tibet Autonomous Region, Lhasa and concerned heritage administrative departments, has made efforts in the following aspects:

4. 1 Conservation of traditional knowledge systems and craftsmanship

Excerpt from the Decision 40 COM 7B. 31 of World Heritage Committee:

"4. Noting the conservation actions currently being implemented at the property, commends the State Party for the efforts made to integrate traditional knowledge systems and craftsmanship in conservation works and encourages the formal integration of this approach in conservation and management arrangements for the property;"

The Chinese Government places high importance on conservation of Tibetan traditional knowledge systems, skills and protection of the cultural inheritors by establishing such systems as to encourage passing on of traditional manufacturing skills. Tibetan metal forging techniques and drawing of colored-sand dkyil-ykhor have been included by Chinese State Council into the "National List of Intangible Cultural Heritage"; People's Government of Tibet Autonomous Region has announced and included the following into the "List of Intangible Cultural Heritage in the Autonomous Region": metal finishing crafts at Xueduibai, Lhasa, wood carving techniques, the art of copper forging, clay sculpture making at Benzi Suba, production of a-ga clay; besides, People's Government of Tibet Autonomous Region has designated that traditional skills shall be included in the heritage conservation projects in Tibet. It is clearly stated that traditional techniques must be applied during heritage conservation and maintenance works. The several measures taken by the conservation management organizations for the component parts of the Potala Palace, Jokhang Temple Monastery, Norbulingka during practical works have contributed a lot for inheritance of the traditional Tibetan construction skills. They insist integrating traditional craftsmanship with modern technical means, focusing on inheritance of traditional arts and training of young craftsmen. Heritage protection and cultural administrative departments at different levels also exert monitoring and guidance on the above work. Besides, they also get financed from the central government. Examples are: traditional gilt bronze techniques were applied for conservation and renovation of the Golden Top of Potala Palace for inheritance in a

scientific manner; for renovation and maintenance of the a-ga clay on the roof surface of Xuecheng City Complex, and on the roofs of Wangkangding, and Jiushi Lingta Temple, traditional material a-ga clay was used by ramming skills and oil applying and waxing techniques, in combination with modern water-proof and seepage-proof techniques. Good results have been achieved.



Fig.1 Traditional gilt bronze techniques applied for conservation and renovation of the Golden Top of Potala Palace



Fig. 2 Traditional ramming skills applied for maintenance of the a-ga clay on the roof surface of Xuecheng City Complex



Fig. 3 Making of door-curtain of ancient building at Norbulingka

4. 2 Compilation of conservation plans for components parts of heritage and links with other plans

Excerpt from the Decision 40 COM 7B. 31 of World Heritage Committee:

"5. Also notes that Cultural Heritage Conservation Plans (CHCP) for the three component parts of the property and the Urban Master Plan for Lhasa are being developed and reiterates its request that copies of these documents, with a synthesis in English, be submitted to the World Heritage Centre prior to their finalization and approval, for review by the Advisory Bodies;"

As entrusted by the conservation management organizations for Potala Palace, Jokhang Temple Monastery, Norbulingka and other heritage components, Chinese Academy of Cultural Heritage has undertaken the compilation of *Conservation Plan for the Potala Palace* and *Conservation Plan for Jokhang Temple Monastery*, while Henan Research Institute for Ancient Architecture completed the *Conservation Plan for Norbulingka*. All the three drafts have been finished in 2015. Between 2015 and 2017, State Administration of Cultural Heritage, PRC has organized experts in Chinese history, archaeology, conservation, planning and construction to review the plans, and urged Tibet Autonomous Region, Lhasa city and concerned units to make revisions, as requested by the World Heritage Committee and World Heritage Center, and following the opinions and suggestions from reactive monitoring experts from World Heritage Center, ICOMOS, ICCROM.

The three conservation plans have been completed for approval. Great efforts have been made during the process from compilation, revision to perfection. Concerned units have followed the opinions and suggestions from various departments of Tibet Autonomous Region, Lhasa and other stakeholders. Links were made between the three plans with other urban plans, such as: Urban Master Plan for Lhasa, Conservation Plan of Historical and Cultural Blocks at Bakuo Street of Lhasa, Conservation Plan of Famous Historical and Cultural Cities of Lhasa, the Regulatory Detailed Plan of Lhasa Downtown Area, Overall Land-use Plan of Lhasa. Lhasa city also entrusted China Academy of Urban Planning & Design to draw up the *Guidelines for Lhasa Architecture Landscape*, as an effort to strengthen conservation and control of the historic landscape surrounding Historic Ensemble of the Potala Palace, Lhasa. After approval from State Administration of Cultural Heritage, PRC, the three conservation plans of the Potala Palace, Jokhang Temple Monastery, Norbulingka shall be sent to UNESCO World Heritage Committee, World Heritage Center and related advisory bodies for review in its English version, as requested.

4. 3 Results of reactive monitoring and implementation of suggestions

Excerpt from the Decision 40 COM 7B. 31 of World Heritage Committee:

" 6. *Takes note of the outcomes of the April 2015 Reactive Monitoring mission to the property and urges the State Party to take into account and implement the following recommendations:*

- a) *Include provisions in the CHCP for the Potala Palace to continue the monitoring of soil erosion and bedrock conditions and to identify any measures required to anticipate potential structural stability issues,*
- b) *Include provisions in the Urban Master Plan to maintain the spatial linkages and visual corridors between the component parts of the property, their historical context and wider setting, and to promote and maintain the traditional urban structure and layout of the buffer zones. This should include, but should not be limited to, regulations regarding acceptable heights, visual qualities, façades and roofs,*
- c) *Include mechanisms in the Urban Master Plan for the approval of development projects, including requirements for Heritage Impact Assessments (HIAs), archaeological excavations (where relevant) and the creation of a coordinated permit system,*
- d) *Ensure that the sacred character and pilgrimage use of Lhasa is fully articulated with the management arrangements for the property,*

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- e) *If necessary, develop a Cultural Environment Management Plan to provide complementary measures for the Urban Master Plan,*
 - f) *Explore alternative locations for the telegraph tower that currently impacts the visual qualities and predominance of the Potala Palace in the landscape."*

4. 3. 1 Monitoring on water loss and soil erosion, rock conditions

Chinese government and Tibetan Autonomous Region attach great importance in monitoring of works to conserve water and soil and monitor rock conditions. Continuous monitoring has been carried out on that of the Potala Palace, when drawing up the conservation plan. Comprehensive analysis is also conducted. The contents and requirements will be clarified in Conservation Plans for the Potala. Under direction from State Administration of Cultural Heritage, PRC, Management Bureau of the Potala Palace entrusted professional designers such as Dunhuang Academy China to draw up plan for the setup of monitoring system at the Potala Palace, which will include specific measures to monitor the northeast and southwest sides of the Potala Palace. The plan is expected to implement by 2018 as funds are already in place. In addition, as approved by State Administration of Cultural Heritage, PRC, in 2017, Management Bureau of the Potala Palace entrusted Beijing Jiaotong University for the Monitoring Plan of Structure at the Potala Palace (phase II), which will be initiated in 2018 for long-term monitoring and analysis of rock conditions at the Potala Palace.

4. 3. 2 Protection of the spatial relation between heritage components

World Heritage Center, ICOMOS, ICCRO organized joint reactive monitoring in 2015. This has helped Tibet Autonomous Region, Lhasa municipal government and concerned departments to further understand the requirements made by World Heritage. Spatial relation between different heritage components, the visual corridor and immediate setting have earned more attention.

With more efforts for cooperation between heritage administrative departments of different levels and urban planning/construction departments at Tibet Autonomous Region, Lhasa, a specific research will be launched as planned, to further analyze selection of the location of the three heritage components, their visual relation, the historical surroundings and landscape. The purpose is to find out the requirements for protection of environmental surrounding and landscape, offering suggestions for designing urban planning and measures at protective zones around the Potala Palace, Jokhang Temple Monastery, Norbulingka, as well as the adjoining areas and outer

regions. It is planned to complete before 2019. Research findings will be included in the *Urban Master Plan for Lhasa* in next phase.

4. 3. 3 Approval and correction of development & construction projects

The Potala Palace, Jokhang Temple Monastery, Norbulingka have all been announced by the Chinese State Council as State Priority Protected Sites. As stipulated in the Law of the People's Republic of China on the Protection of Cultural Relics and World Cultural Heritage Protection Management Principles, for State Priority Protected Sites such as the Potala Palace, Jokhang Temple Monastery, Norbulingka, "Delimitation of the protected areas and construction control areas shall be in line with the conservation requirements for core areas and buffer zones of World Heritage." Development & construction projects which involve the protected areas and construction control areas shall go through the procedures for administrative examination and approval, according to law. For projects which may pose potential impact on OUV of World Heritage, the plans shall be submitted to UNESCO World Heritage Center for review by World Heritage Committee before implementation, following the rules stated in Paragraph 172, *Operational Guidelines* for the Implementation of World Heritage Convention.

In actual practices, State Administration of Cultural Heritage, PRC has strictly followed the above-said international conventions and Chinese laws and regulations to strengthen management on development & construction projects at the Potala Palace, Jokhang Temple Monastery, Norbulingka. Concerning the impact of the television signal tower upper hill on the view and significance of the Potala Palace pointed out by the reactive monitoring mission jointly carried out by WHC, ICOMOS and ICCROM, SACH together with the Municipality of Lhasa and related planning institutions will launch a specific study on it. Related regulatory systems have also been established at Tibet Autonomous Region and Lhasa where the heritage is located. Heritage impact analysis must be examined before implementation of the project. In 2015, State Administration of Cultural Heritage, PRC has submitted the State of Conservation of Historic Ensemble of the Potala Palace, Lhasa to UNESCO. The affixed *Conservation Management Rules of the Potala Palace, Tibet Autonomous Region* has clearly stated that:

"Article 13 For new buildings, reconstructions, expansions of buildings (structures), greening, water supply, power supply, heating, and water taking projects within the protected areas and construction control areas, project design plans shall be submitted for approval after examined by departments of Heritage Management, Housing and urban-rural construction, Water, Power, Environmental Protection, Public Security &

Firefighting.

Article 14 For new buildings, reconstructions, expansions of buildings (structures) within the protected areas and construction control areas, the heights, styles, volumes, colors shall follow the requirements of Conservation Plan of the World Heritage Potala Palace. No units or individual is allowed to construct on top of the original architecture any buildings (structures) or ancillary facilities which may affect the visual corridor and historic landscape of the World Heritage Potala Palace.

4. 3. 4 Conservation of Lhasa as a pilgrimage site and inheritance

It has long been a great concern for Chinese governments of different levels and concerned departments to protect Lhasa's position and function as a sacred site for Tibetan culture and Tibetan Buddhism, and to protect religious beliefs held by the vast number of Tibetan Buddhism believers. Conservation management bureaus of the Potala Palace, Jokhang Temple Monastery, Norbulingka have taken measures to limit number of tourists or open heritage sites at different time periods, so as to offer a safe environment for tourists to have a good travelling experience and for believers to pilgrim. The number of believers who pilgrim is not limited. And no fee is charged. But in order to reduce the impact of tourist and religious activities on heritage, it is stated clear by these conservation management bureaus that, as many as 600 believers can stay within the Potala Palace every hour. This is based on analysis of heritage carrying capacities, an action which can protect Lhasa as a sacred site for believers to pilgrim, and best reduce the impact of tourism and religious activities on Historic Ensemble of the Potala Palace.

4. 3. 5 Planning of cultural environment management

Cultural environment management plan is a new challenge and opportunity for protection of historic city. Cultural as a new element will be included in urban planning. Cultural space planning, the contents and strategy, are also proposed. It is good for culture to play its parts on urban economy and places, cultivating confidence for the folks to maintain the spirit. Management bureau of the Potala Palace will start pilot research in the next phase. Professional research and design units will be organized to testify the necessity and feasibility to form the cultural environment management plan of the World Heritage, based on principles to plan the cultural environment. Pre-stage analysis will also be carried out. Concerned information will be reported to UNESCO World Heritage Committee and World Heritage Center in a timely manner.

4.4 Scaled map of the buffer zones of the three heritage components parts

Excerpt from the Decision 40 COM 7B. 31 of World Heritage Committee:

*"7. Requests the State Party to provide, following the procedure for boundary clarifications outlined in the Operational Guidelines, scaled maps of the buffer zones for the three component parts of the property, in line with the boundaries approved at the time of inscription, along with details of height restrictions within the buffer zones, as requested by Decision **33 COM 8B.47**;"*

As requested by the decision of UNESCO World Heritage Committee, State Administration of Cultural Heritage, PRC has directed Tibet Autonomous Region, Lhasa heritage administrative department to draw in detail the heritage zone and buffer zones of the three heritage components parts – the Potala Palace, Jokhang Temple Monastery, Norbulingka. This is done when drawing up the *Conservation Plan for the Potala Palace*, *Conservation Plan for Jokhang Temple Monastery*, and *Conservation Plan for Norbulingka*. The current detailed large scale topographic map can also be referenced. Once the three plans have been approved, and maps made according to Chinese law and regulation, they shall be submitted to World Heritage Center by the State Administration of Cultural Heritage, PRC, together with the map.

The *Conservation Plan for the Potala Palace*, *Conservation Plan for Jokhang Temple Monastery*, and *Conservation Plan for Norbulingka* which are being developed have made clear statements on the height control within buffer zones. It will be announced to the public for implementation after going through the approval formalities according to Chinese laws and regulations.

4.5 Historic Ensemble of the Potala Palace in Lhasa and other work in progress

4.5.1 Protection and administrative agencies

The administrative agencies are set up respectively for the three elements of the Heritage of the Historic Ensemble of the Potala Palace, namely the Potala Palace, the Norbulingka Summer Palace and the Jokhang Temple. Among them, the Potala Palace Management Office employs 78 people, the Norbulingka Management Office employs 47 people, and there are 123 officers working in the Jokhang Temple. The main functions include protection and management of cultural relics, building maintenance, conservation and study of cultural relics in the collection of cultural institution, tourism

destination management, tourism reception service, tour guide service and other related services. The Potala Palace, the Norbulingka Summer Palace and the Jokhang Temple have a fire brigade respectively, responsible for firefighting and security. Meanwhile, all the three buildings are equipped with security monitoring rooms, with staff on duty 24 hours and are responsible for the safety and protection of cultural relics. The Potala Palace Management Office and the Norbulingka Management Office also set up special monitoring departments recently, to conduct a comprehensive monitoring on the heritage.

The various administrative agencies of the historic Ensemble of the Potala Palace strictly follow the relevant laws, regulations and systems pursuant to respective local laws such as the *Regulations of Heritage Conservation of Tibet Autonomous Region, and Regulations on Protection of Potala Palace in Tibet Autonomous Region*. These laws govern the administration, maintenance, security and protection, firefighting for the historical architecture and related culture relic at the site.

The administrative agencies of the Historic Ensemble of the Potala Palace attach great importance to provide special training for the personnel of conservation, management and monitoring as well as the cultivation and inheritance of traditional skills. From 2015 to 2017, the agencies participated in a total of five training sessions, including the training course on monitoring of building structures hosted in Beijing by the State Administration of Cultural Heritage from July 6 to 10, 2016, the digital training course from August 1 to 14, 2016, the training course on the preservation and protection of Tibetan Buddhist relics held in the Forbidden City in December 2016, the second regional training course on the restoration of ancient books held by the Tibet Library, and the training course on the management of museum collections held by Shanxi Normal University. In the process of the conservation project, the administrative agencies of the Historic Ensemble of the Potala Palace specially arranged for young people to participate in the implementation of the conservation and restoration work, so that the traditional skills are effectively passed on through practice.

4.5.2 Monitoring factors affecting the heritage sites

Protection and monitoring of the Historic Ensemble of the Potala Palace in Lhasa can be divided into three main areas. First, the establishment of a monitoring and management system and an emergency response mechanism. Second, the implementation of a special monitoring. Third, the development of analysis and research of monitoring data.

Currently, a heritage monitoring system has been basically established at the heritage sites. The Norbulingka I Monitoring System has been approved by China's State Administration of Cultural Heritage and passed the project acceptance in October 2017, which received wide acclaim. This project included a new monitoring system from the perspectives of heritage site management, assessment of the impact factors and the establishment of the emergency response mechanism. This is the first such monitoring system for World I Heritage sites in Tibet of China. In addition, the Norbulingka Management Office implemented three phases of Preventive Protection Project of Precious Cultural Relics in 2015, 2016 and 2017 respectively. The first phase of the project in 2015 has passed the acceptance t in September 2016 and the other two phases are scheduled to be fully completed by 2018. The thorough completion of this project will monitor and control the conservation environment of cultural relics while better addressing the conservation environment of the precious collections of Norbulingka. The replenishment of shockproof cabinets and professional harnesses of cultural relics can effectively prevent cultural relics from being affected by pests and microorganisms and minimize the impact of natural disasters on cultural relics. In addition, the Norbulingka Management Office plans to carry out the research on the preservation environment and factors affecting precious cultural relics in the plateau, along with such research institutions as the Shanghai Museum and others.

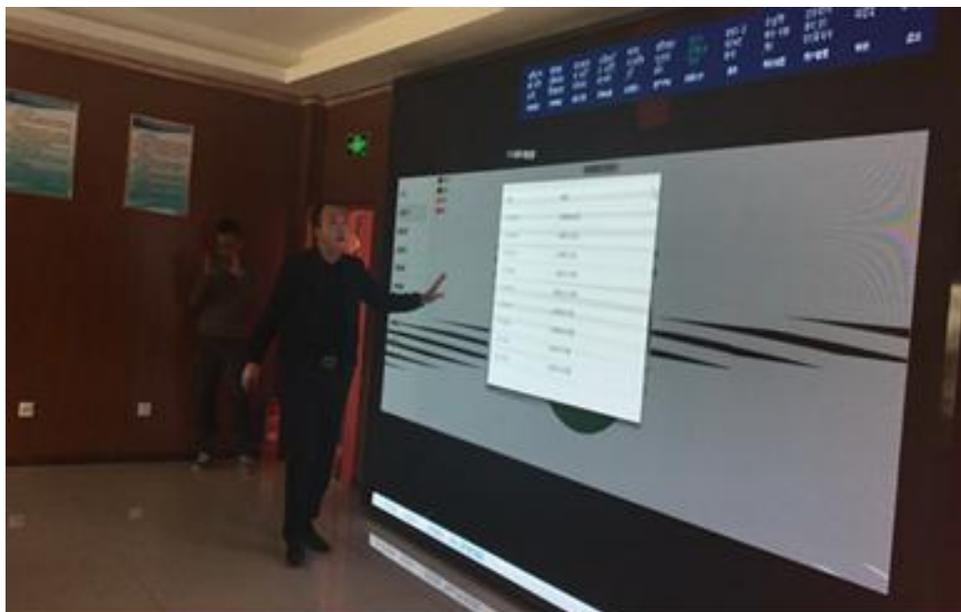


Fig. 4 Norbulingka Heritage Monitoring Center

The monitoring system for Potala Palace heritage site has been approved by China's State Administration of Cultural Heritage. At present, funding has been in place for the project and the implementation is expected to be completed in 2018. Monitoring Plan of Structure at the Potala Palace (Phase I) has been completed and passed the

acceptance by the experts, which also won the Science and Technology Award of Tibet Autonomous Region. The preventive protection project of precious cultural relics of the Potala Palace has been successfully implemented, passed the acceptance by the experts and been widely praised. It basically achieves the effect of effectively monitoring and controlling the preservation environment of the precious collections of the Potala Palace, so that these precious collections of cultural relics can always be preserved in a safe environment. The new monitoring and management system for the Potala Palace heritage site has been approved by the State Administration of Cultural Heritage with funding in place, which is to be implemented in early 2018. The structural monitoring project of the Potala Palace (Phase II) has been submitted to the State Administration of Cultural Heritage and is currently in the process of approval. Through the implementation of special monitoring, we have concluded the carrying capacity of tourists in the Potala Palace, effectively guiding the implementation of tourist management. In addition, the monitoring research is also conducive to the timely prevention of distortion of beams and pillars and other building safety hazards.

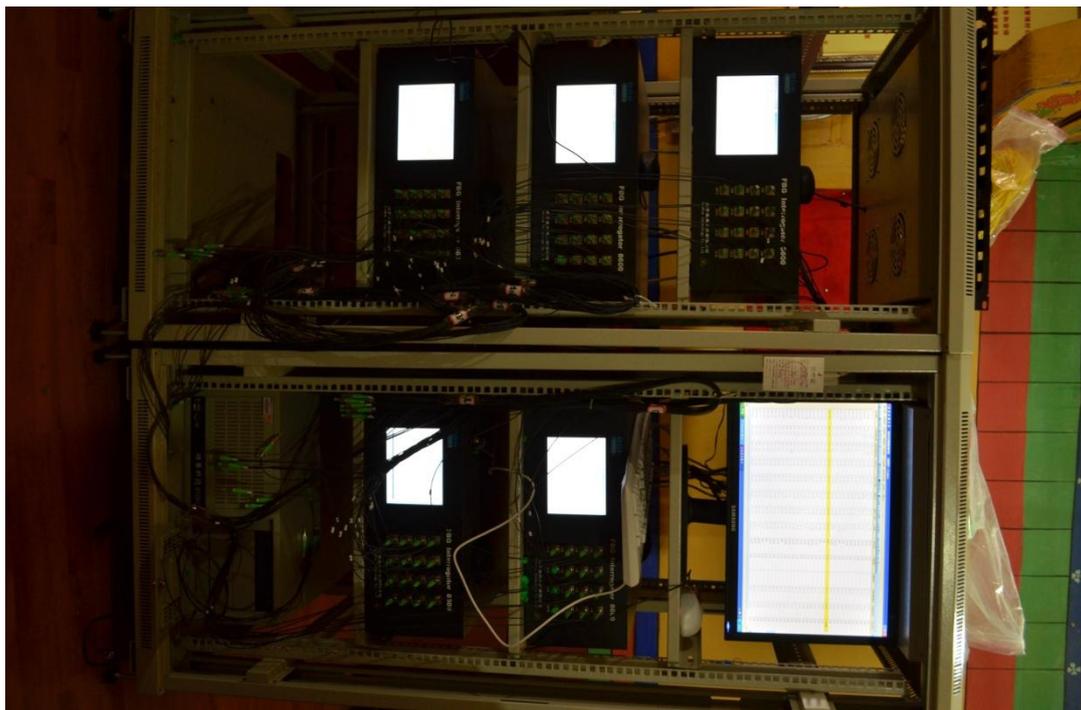


Fig.5 Structural monitoring project of the Potala Palace

The project for setting up monitoring system for the Jokhang Temple heritage site has completed planning paper in 2017 and is expected to start in 2018.

4.5.3 Protection of heritage itself

The Potala Palace Management Office has done a great deal of fruitful work in

conservative restoration, building repair and maintenance. In terms of building repair, the Potala Palace Management Office repaired the surface layer of Aga clay, fixed up the interior wall surfaces of multiple buildings, replaced some of the wooden components, completed the replacement of the sleeper wall lintels damaged by worms next to the mountain exit and the replacement work of the sleeper wall lintels and rafters of the 13th Panchen; and carried out the infiltration prevention for roof Aga clay of all building complexes in the snow city and completed the renovation for the cuticular layer fracturing and surface de-compaction of Aga clay of the Wangkang Roof and the temple roof of the 9th Pagoda. In the protection and restoration of cultural relics, the Potala Palace Management Office launched the rescue and restoration of some fine silk cultural relics, such as the Qiangkang Canopy in the Potala Palace; and started the golden roof renovation, with the support from China's State Administration of Cultural Heritage and funding from the state. Meanwhile, the Potala Palace Management Office completed the early experimental renovation of traditional craft repairs and plans to use traditional arts and crafts to carry out the restoration and protection of the Potala Palace's Golden Roof from 2018 onwards.



Fig. 6 Reinforcement project of the temple roof of the 9th Pagoda of the Potala Palace

The Norbulingka Management Office launched three phases of rescue conservation and repair work of Thangka in 2015, 2016 and 2017, respectively. Commissioned by the Norbulingka Management Office, the China Silk Museum adopted minimum intervention to repair the damage to the Kelsang Palace ite Tara Thangka and the Eternal Palace Thangka, on the premise of protection and control. The first phase of the project has passed the acceptance and achieved the expected results. In 2016, the Norbulingka

Management Office commissioned the Dunhuang Research Institute to draft protection and restoration plans for the murals in four palaces including the Eternal Palace. Approved by the State Administration of Cultural Heritage of China, the fund has been in place and the work is expected to begin in 2018.

With the approval of China's State Administration of Cultural Heritage, the Cultural Relics Bureau of Tibet Autonomous Region started the protection and restoration of the murals in the Jokhang Temple in 2013. The project passed the inspection in September 2017 and achieved the expected conservation effect. In 2017, according to the request of the Jokhang Temple Management Committee, Lhasa Municipal Bureau of Cultural Relics commissioned the Guowenyan Company to compile new specification for the renovation of the drainage system around the Jokhang Temple. It's currently in the design stage, Implementation will be carried out as soon as possible after completion of the design work in 2018.

4.5.5 Heritage safety

Approved by the State Administration of Cultural Heritage, the Potala Palace Management Office launched an intelligent system to upgrade fire control and safety at Potala Palace. At present, funds are in place and it is planned to be implemented in 2018 so as to achieve the goal of effectively enhancing the prevention and control of fire and piracy at the site. The Norbulingka Management Office compiled the Norbulingka safety plan and the Norbulingka fire control plan in 2017, which have been approved by the State Administration of Cultural Heritage of China. With funds in place, it is planned that the implementation will be completed in 2018. In 2017, the Bureau of Cultural Relics of Tibet Autonomous Region commissioned the First Institute of China's Ministry of Public Security and Chinese Academy of Building Sciences to prepare the Jokhang Temple safety plan and the Jokhang Temple fire control plan respectively, which have been approved by the State Administration of Cultural Heritage of China. With funds in place, it is estimated that the implementation of the above project will start in 2018. The implementation of the above projects will further enhance the prevention and control of the Historic Ensemble of the Potala Palace against fire and piracy. The implementation of safety control can minimize the impact of natural and man-made risks on the Historic Ensemble of the Potala Palace. The monitoring system and the emergency response mechanism and a great deal of preventive and curative work have made the entire site and its various elements more comprehensively controlled. Necessary minimal intervention and rescue protection can effectively solve the problem of deadly diseases in the Historic Ensemble of the Potala Palace. The overall protection, monitoring and safety work are proceeding in an orderly manner and will promote the

protection of the outstanding universal value of the historic architecture in the Potala Palace more completely and effectively.

**Report on the Local Fire Accident Happening to Jokhang Monastery, Lhasa
presented by the People's Government of Tibet Autonomous Region**

I. Overview of Jokhang Monastery

Jokhang Monastery lies at the center of the historic quarters of Lhasa City, facing west. Its construction began in the middle of the 7th century AD and the existing architectural complex is a result of continuous reconstruction and addition taking place afterwards. The whole building ensemble is laid out along the east-west axis line, consisting of entrance porches, courtyards, the Main Hall, and surrounding dormitories for monks and storage buildings. Its architectural design highlights the style of Tang Dynasty while blending elements of ancient Nepal and India. The life-size gold-gilded bronze statue of Sakyamuni Buddha, at age 12, is enshrined at the Back Hall of the Main Hall of the monastery. In 1961, Jokhang Monastery was inscribed on the First batch of National Level Protected Monuments and Sites by the State Council of China. In 2000, Jokhang Monastery became a UNESCO World Cultural Heritage site as an extension of the Historic Ensemble of the Potala Palace, Lhasa.

II. Review of the fire accident

Around 18:40, February 17, 2018, the ventilating chamber on the second floor of the Back Hall of the Main Hall caught fire, with a burned area of approximately 50 square meters. The statue of Sakyamuni Buddha is enshrined in the first floor, inside the Back Hall. After the fire accident happened, the People's Government of Tibet Autonomous Region immediately launched the emergency response mechanism to put out the fire. When the open fire was extinguished, firefighters cautiously dismantled in a protective manner the golden ceiling of the Back Hall restored in 2013 in order to protect it from the possible collapse of the ventilating chamber and the possible blazing of the fire again. Support sets and partition boards were installed to ensure the safety of the statue of Sakyamuni Buddha. On

the basis of site investigations and inquiries of people inside and outside the monastery, it has been determined that the fire is not a man-made accident but the cause of the fire is still under investigation. As the fire had only minor impact on the first floor, Jokhang Monastery has remained open to public since the next day after the accident (February 18, 2018).

III. Assessment of the local fire accident

The ventilating chamber on the second floor of the Back Hall and its golden ceiling were respectively restored in 1973 and 1984 and repaired in 2013. The ventilating chamber is a structure of four pillars and eight beams. Its interior walls bear line-drawing murals painted in the 1980s. The ventilating chamber is vacant in order to ventilate the Back Hall. It is not a physical carrier of the value of Jokhang Monastery. Site investigation and assessment indicates that the ventilating chamber and its golden ceiling have been partly burned or smudged to various extents. Parts the surface of its wooden pillars and beams have been carbonized. The most parts of the gold-gilded bronze ceiling and decorative elements have remained intact, while only several components suffered minor deformation or damage from high-temperature burning and smudging. In addition, line-drawing murals, бага soil walls and ага soil floors of 1980s, suffered damage or partial stripping to various extents.

Aside from the above-mentioned damages, the local fire accident has had no impact on the life-size gold-gilded bronze statue of Sakyamuni Buddha which is considered a monument of most important historical value. The building of the Main Hall retains safety and stability. The OUV, authenticity and integrity of Jokhang Monastery as a World Cultural Heritage site have not been affected.

IV. Follow-up actions

The Chinese Government attached vital importance to the local fire accident. Mr. WANG Yang, member of the Standing Committee of the CPC Political Bureau and Vice Premier of the State Council, and LIU Yandong, Vice Premier of the State Council, watched the situation closely and made important instructions. SACH immediately dispatched officials and experts help the local authorities to carry out

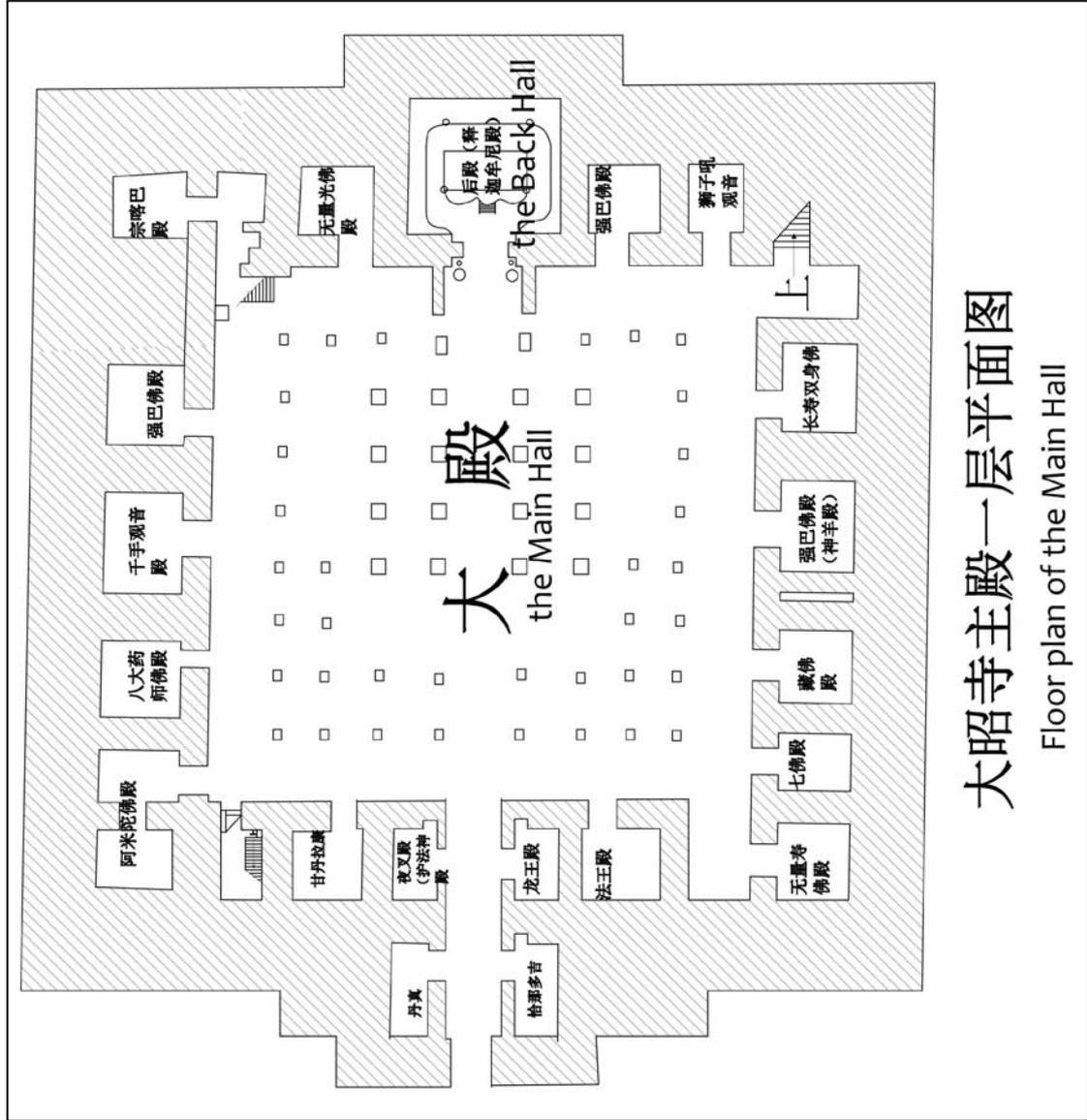
site investigation and assessment and provide technical guidance for after-fire protection of cultural heritage. The People's Government of Tibet Autonomous Region organized right away heritage impact assessment and on-site surveying and planning by professional teams and experts. Repair work on the ventilating chamber on the second floor of the Back Hall shall be carried out in a scientific and normative manner, strictly meeting standards and requirements for World Cultural Heritage sites and using original techniques, forms and materials, with an aim to put the golden ceiling back to its original place as soon as possible.

In order to further ensure the safety of the World Cultural Heritage site, the Chinese Government shall work to improve fire control management and strengthen monitoring of structural stability. Fire safety screenings are being carried out in the Historic Ensemble of the Potala Palace and other heritage properties in Tibet so as to eliminate various factors threatening heritage safety.

Appendix:

1. Floor plan of the Main Hall
2. Photos on damages to the walls on the second floor of the Back Hall
3. Photos on damages to the wooden pillars on the second floor of the Back Hall
4. Photos on public access to the Main Hall on February 18, 2018

Appendix 1: Floor plan of the Main Hall



大昭寺主殿一层平面图

Floor plan of the Main Hall

Appendix 2: Photos on damages to the walls on the second floor of the Back Hall



Appendix 3: Photos on damages to the wooden pillars on the second floor of the Back Hall



Appendix 4: Photos on public access to the Main Hall on February 18, 2018



Buddhist believers and visitors in Jokhan Monastery on February 18, 2018



Buddhist believers and visitors in Jokhan Monastery on February 18, 2018