

근현대 건축문화유산의 가치 보존을 위한 수리체계 개선 방안

Measures of Improving the Repair System
for Value Conservation of Modern Architectural Heritage

박일향 Park, Ilhyang
이규철 Lee, Geauchul
방보람 Bang, Boram

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SUMMARY

Park, Ilhyang
Lee, Geauchul
Bang, Boram

Modern architectural heritage having high utilization value has been increasingly remodeled and utilized as a means of shaping and promoting local identity. However, the value of modern architectural heritage may be damaged during the repair process that is necessary for their utilization. While the conservation and active utilization of modern architectural heritage as cultural heritage are essential aspects that must be addressed in both management and repair, an effective repair system has yet to be established.

Given the transition of the cultural heritage system into a national heritage system, this study acknowledges the lack of a proper repair system for modern architectural heritage, and seeks to propose solutions to improve the system based on an assessment of its current status and characteristics. It is necessary to examine the various issues that arise during repair, identify their causes, and devise effective measures. While the increase in demand for utilization of modern architectural heritage has led to a growing need for specific guidelines, there has been insufficient research on related materials, technological development, and performance standards. As such, policy studies that set the directions for policy improvement should be conducted before embarking on related development research.

Through a comparison with designated cultural heritage, this study examined the characteristics and limitations of the repair system for modern architectural heritage. From studying the repair system in terms of planning, on-site survey, and construction phases, it was revealed that the basis for designated cultural heritage stems from the Act on Repair of Cultural Heritage and related regulations, guidelines and standards, and repair work is carried out under a distinct repair system governed by the Act on Repair of Cultural Heritage, with exceptions applied from the Building Act. Meanwhile, the repair system for state registered cultural heritage reflects the unique nature of the registered cultural heritage system, for which utilization is a premise. This means that heritage value may be affected by the repair process itself. The planning phase lacks procedures for the confirmation and inspection of conservation value, while the on-site survey phase not only involves a high possibility of physical alteration due to the application of the Building Act and other relevant laws, but also lacks institutional safeguards to prevent damage when the conservation value is located outside the building or when the scope of alteration is less than $\frac{1}{4}$ of the exterior area. Furthermore, with the exception of national subsidy programs, measures for repair management are lacking throughout the on-site survey and construction phases. Also noted was the lack of specialized repair technology research for modern architectural heritage, including historical and state registered cultural heritage.

By comparing Korea's repair system for modern architectural heritage to Japan's system for registered tangible cultural heritage (structures) and historic buildings (conserved buildings) and the UK repair system for registered buildings, this study derived three main implications. First, in Japan, the system for registered tangible cultural heritage (structures) includes changes in value elements specified in the registration documents as criteria for alterations. In the UK, the registered building system follows an approval process for alterations based on whether or not the value of the recognized building has been compromised, thereby verifying and managing the preservation value from the registration stage. Second, in Japan, specific conservation and utilization plans covering conservation and management, environmental preservation, and disaster prevention must be submitted when applying for projects, and this lays the foundation for continuous conservation and management of the value held by buildings. Third, various repair guidelines are available for architectural heritage to be utilized and maintained as buildings.

To identify specific issues arising at repair sites, in-depth interviews were conducted

with repair personnel of the former Gunsan branch of Korean Food Corporation and the main building of Gunsan Customs. The former Gunsan Branch of Korean Food Corporation underwent repairs in two stages from 2015 to 2020, and falls under one of the early cases of seismic reinforcement for cultural heritage. The main building of Gunsan Customs was repaired from 2021 to 2022, and holds significance as the first heritage reviewed by the Cultural Heritage Repair Technology Committee.

The issues identified in the repair of the former Gunsan branch of Korean Food Corporation based on in-depth interviews were the lack of long-term planning for conservation and utilization during the planning phase, excessive structural reinforcement and damage to the original structure as a result of observing existing laws during the on-site survey phase, and frequent design changes and additional construction, compromise in performance due to budget constraints, and lack of detailed repair reports during the construction phase. Eleven key issues were identified throughout the on-site survey and construction phases, including a lack of common understanding regarding the scope of conservation, difficulties in running advisory meetings and making decisions, shortage of qualified experts and lack of qualification requirements, poor job understanding due to work shifts, and exclusion from patent applications. In the case of the repair of the Gunsan Customs main building, the primary issues in the on-site survey phase were the expansion of the scope of work and ambiguous role of the Repair Technology Committee in the on-site survey phase. In the construction phase, there were difficulties in procuring skilled workers and materials, as well as challenges in applying standard guidelines. Common issues for both the former Gunsan branch of Korean Food Corporation and Gunsan Customs were the occurrence of design changes and the absence of detailed repair reports.

Based on the discussions from in-depth interviews with repair personnel in both cases, and after consulting with members of the Modern Cultural Heritage Subcommittee under the Cultural Heritage Committee and cultural heritage repair engineers, this study identified major issues for each stage of the modern architectural heritage repair system, and selected key tasks to derive measures for improvement. To establish a foundation for the repair system, the following improvement directions were proposed: Establishing a legal basis for the repair system of state registered cultural heritage, designating and managing essential conservation elements, evaluating and grading value elements, establishing criteria for the application of seismic design and existing laws, conducting

research on modern architectural materials and technology, and devising measures to enhance understanding of work procedures. These are considered long-term challenges that require research to be conducted before policy implementation and system improvement. The major tasks identified at each phase of the repair system were mandating investigation/planning and applying different procedures for each construction type in the planning phase, enhancing design professionalism (responsibility) in the on-site survey phase, enhancing construction professionalism (responsibility) in the construction phase, and strengthening the role of the Repair Technology Committee in the on-site survey and construction phases. The tasks were classified according to preliminary research, procedural improvements during the repair process, policy implementation, and system improvement, and the major tasks were those that can be implemented through short-term procedural improvements.

Based on the above, this study proposed measures to improve the repair system for modern architectural heritage under the national heritage system, which will be implemented from next year. First, for legalization of the repair system for registered cultural heritage, three alternative approaches were suggested: 1) Amendment of the Act on Repair of National Heritage to include registered cultural heritage, 2) Amendment of the newly enacted Act on the Conservation and Utilization of Modern Cultural Heritage to include regulations for the repair system, and 3) Enactment of the Act on Repair of Modern Cultural Heritage for modern cultural heritage. The advantages and disadvantages of each approach were compared, and the amendment of the Act on Repair of National Heritage was adopted as the optimal solution. In addition, the proposed procedural improvements for the repair system were mandating investigation/planning in the planning phase, enhancing design professionalism in the on-site survey phase, systematizing the management of repair history in the construction phase, and reinforcing the role of the Cultural Heritage Repair Technology Committee in the on-site survey and construction phases.

Keywords :

Modern Architectural Heritage, Modern Historic Site, Registered Cultural Heritage, the Repair System