

A STUDY ON THE REASSESSMENT OF BUFFER ZONE MANAGEMENT POLICY
IN SOUTH KOREA

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I. Introduction

1. Purpose of Research

In 2000, the South Korean government set up legislation for preserving cultural resources around cultural heritage sites that are designated by the central heritage agency and local governments. By not only restricting construction activities such as building, planting, lighting/heating, polluting, digging, and topographical change, but also by regulating any harmful activities on the cultural and natural resources within a specified buffer zone area around the heritage sites, named the Historic and Cultural Environment Protection Area (hereinafter the “HCEPA”), this regulation has played a crucial role in

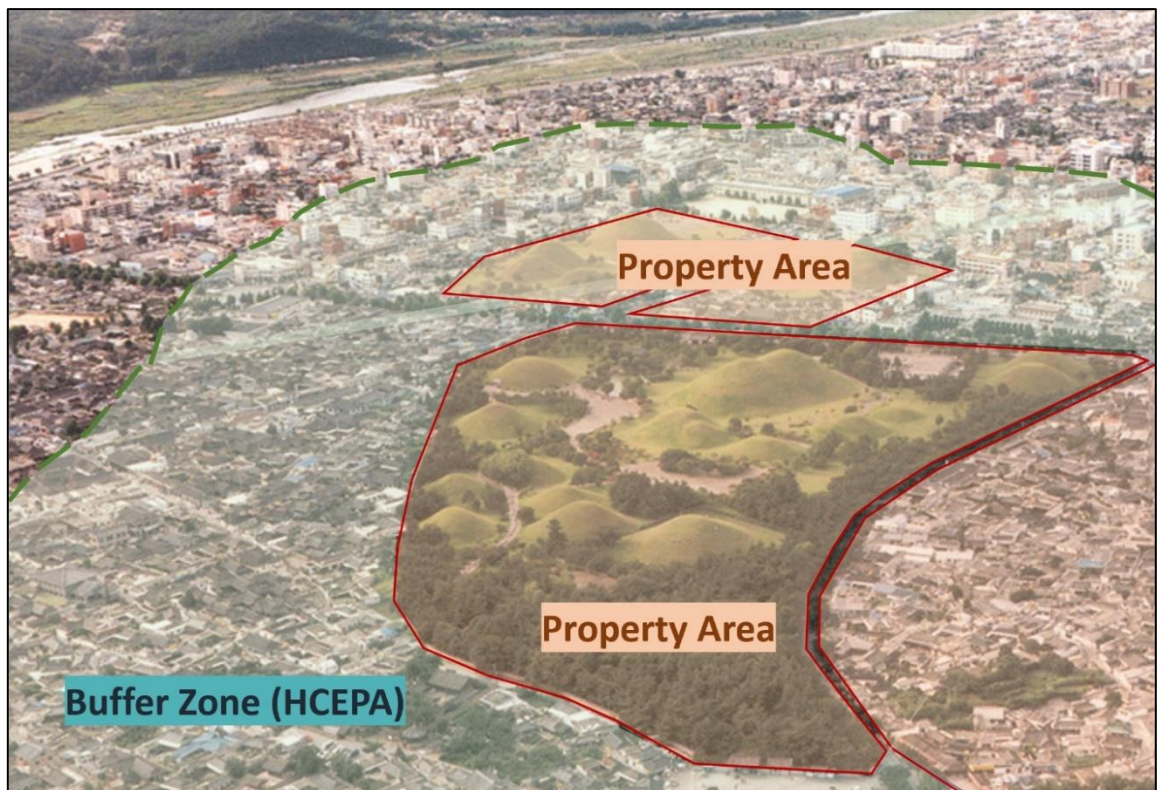


Figure 1 Example of Historic and Cultural Environment Protection Area (HCEPA)

(Daereungwon Ancient Tomb Complex, Gyeongju, South Korea)

<source: Cultural Heritage Administration, South Korea, 2019>

preserving and protecting cultural and natural resources, including landscape, and ensuring the visibility of heritage sites in South Korea.

However, this new “buffer zone” provision, even though widely praised by preservationists, experts in cultural heritage area and the general public, has been encountering criticism and opposition by some stakeholders such as residents and developers. The opposition complains that the HCEPA regulation brings depreciation of the property value of the lands they have or plan to develop.

Criticism of the HCEPA regulation is basically divided into three opinions. First, the range of the area and the degree of regulation are applied equally and uniformly to every type of heritage site, without regard for individual characteristics of the site. For nationally designated heritage, for example, the range of the area is uniformly set up by either 300 meters (for local-designated cultural heritage) or 500 meters (of State-designated cultural heritage) from the boundary of the cultural assets, without concern for characteristics each cultural heritage type contains.

Second, building height regulation is applied without exception, even around the “invisible” cultural heritage prehistoric sites whose remains are covered by the earth and thus contains no visible remains on the ground. Contrary to the French buffer zone system that is applied only to the historic sites which are clearly visible, the South Korean HCEPA is applied to all type of cultural heritage sites, including the sites that do not contain any visible resources on the ground, but also to natural sites.

Third, time spent for application, reviewing and receiving the result tends to be delayed than expectation, which disables the applicants, who cannot realistically hardly calculate the opportunity cost for their building alternation/addition/demolition project and

thus imposes an additional economic burden on them.

In order to respond to the demand to rationalize the 2000 buffer zone regulations, the Cultural Heritage Administration (hereinafter the CHA) – the central administrative agency in charge of cultural and natural heritage in South Korea – has been refining the policy, amending the regulation between 2008 and 2012, and in 2016. In 2008, the CHA, in cooperation with the local and municipal governments set up the “Standards of Permittable Activities” for each HCEPA. The Standards of Permittable Activities, describing the building height limit and other permittable activities specific to each resource, and thereby has enabled developers to know the maximum building height and other applicable activities that can be approved without special permission, which reduces/cuts the opportunity cost of the residents/developer.

In a further refinement, in 2016, the CHA developed “A Set of Judging Criteria for the Protection of the Historical and Cultural Environment,” (hereinafter the Judging Criteria) and applied it as a guideline of the reviewing process by the CHA and local governments. Presuming the judging elements into five – placeness, dwarfing, prospect, skyline and oneness, and reclassifying cultural and natural heritage into 26 sub-categories (types), the Judging Criteria specifies which element should be applied on each heritage type or not, and how the elements can be applied.

Interestingly, the Judging Criteria suggest reviewers not to consider “prospect” factor when reviewing construction works within the HCEPAs of some heritage types, such as prehistoric site and kiln site. It is regarded a reasonable solution for resolving the particular problem of imposing excessive building height regulation around invisible cultural heritage, that is mentioned on page 2. However, no empirical research exists to

provide any reliable base supporting this idea.

This study will analyze the data of building height variance application within the HCEPAs, as a way to provide a supportive basis for the policy that building height regulation within the buffer zone is less necessary for invisible cultural heritage.

2. Literature Review

The CHA performed the first-ever empirical research on the Protection Area in 2008. The CHA (2008) questioned the regulatory requirement that the scope of Protection Area for the nationally designated heritage sites is uniformly established by 500 meters without considering the types of each heritage sites and the characteristics of each area and its development level. In the study, each Protection Area of the heritage sites was graded by: 1), the types of heritage sites – dimension (unit/group), character (natural site/monument/the rest); 2), development level – level of city (metropolitan/small-medium city/rural area) ; and 3), use district (residential, commercial and industrial district/controlled district/green, preservation, agricultural, natural district). The study further differentiates the range of each Protection Area into 4 categories: 100m, 200m, 300m, and 500m. It provided a deductive conclusion based on the scientific method with given data but failed to draw a reasonable explanation on why the scope of each Protection Area should be set up within four categories (100m, 200m, 300m, and 500m).

Shim et al. (2010) studied the motive of conflicts concerning the regulation within the Protection Area and their underlying factors and proposed the methods to soothe the conflicts. Overall, 41 administrative appeal cases between the year of 1997 and 2006 were considered as conflict cases and placed into one of five categories, as being against ‘equity,’

‘property right regulation,’ ‘use regulation,’ ‘uncertainty of standard’ and ‘administrative process.’ The authors concluded with 4 methodology to alleviate the conflicts, in which the deliberation decision process is to be supplemented with the prior management plan including guidelines and the consultation proceedings. However, they did not append either an implementation scheme for the procedure nor details of guidelines for actualizing the methodology.

The CHA (2014) performed preliminary research for creating the “Judging Criteria Set,” described on page 3 above. The CHA (2014) intended to define pursuable guidelines/rules reflecting the inherent characteristics of each heritage site type, intending to thereby reduce the possibility of arbitrary decision-making in the permit review process. The Judging Criteria Set presumes the judging elements into five – placeness, smallness, visibility, background and contextuality – and set a formula of the element application on each heritage site types. In other words, the formula clarified which elements should be/should not be applied in a specific heritage site type and defined the specified considering factors on each element. However, the deduction of the formula relied on a small number of experts (3-5 professionals) which undermines the validity of the output of the research.

Other studies are similarly more concerned with either the case study or policy suggestions than with empirical research. Kim et al. (2003) and Jang et al. (2007) provide policy suggestions such as the coordination of the Protected Area scope, consideration of building color/materials as additional regulatory factors and involvement the design and planning experts during reviewing process. The CHA (2016) performed a comparative study to the heritage setting system in the United Kingdom and France and suggest the

adoption of compensation tools such as tax credits and implementing resident supporting projects in response for the regulations. The CHA (2012) and the CHA (2015b) suggest the Protection Area need to be defined as a “specific use area” in the Land Use Law, which prevent the overlay of different level of regulations and thus efface conflicts with zoning regulation.

3. Methodology

This paper is divided into three parts: a) introduction and comparison study of construction controlling mechanism among some countries – the United States, France – and UNESCO buffer zone system; b), overview of South Korean cultural heritage preservation system and introduction of South Korean buffer zone: HCEPA (introduction and development); and c), empirical research on whether building height regulation within the buffer zone of invisible cultural heritage is necessary.

In the first part, three international case studies on construction controlling mechanism will be introduced in detail. Whereas not a few of the UNESCO World Heritage Sites and all of French historic sites that are either designated or inscribed contain their own buffer zones as a way to regulate any harmful activities against their preservation, the United States has adopted a consultation program (applicable only to federal projects) that enables stakeholders to get involved and revise the project as a way to lessen an adverse effect to historic resources.

The second part will introduce the basic structure of the South Korean cultural heritage management system and a detailed explanation of the HCEPA, a South Korean buffer zone policy for cultural heritage. As the HCEPA, when it was introduced in 2000,

was modeled after the French buffer zone, comparisons between the two systems will be also mentioned.

The last part of this study will focus on developing empirical result to demonstrate that building height regulations within the HCEPA of invisible cultural heritage are less necessary than for other types of cultural heritage. The value “necessary” will be evaluated by the attitude of the applicant part (landowners, developers, etc.) and reviewer part (cultural heritage committee member).

<South Korea>

CHA	Cultural Heritage Administration	HCEPA	Historic and Cultural Environment Preservation Area
NCHC	National Cultural Heritage Committee	DA	Designated Area
CHPA	Cultural Heritage Protection Act	PZ	Protected Zone
ABCH	Area of Buried Cultural Heritage		

<U.S.>

ACHP	Advisory Council of Historic Preservation	NHPA	National Historic Preservation Act
SHPO	State Historic Preservation Office	APE	Area of Potential Effects
THPO	Tribal Historic Preservation Office		

<France>

SS	Protected Sector (Secteur Sauvegardé)	PSMV	Preservation and Promotion Plan (Plan de Sauvegardé et de Mise en Valeur)
AVAP	Areas of Enhancement of Architecture and Heritage (Aires de Mise en Valeur de l'Architecture et du Patrimoine)	ZPPAUP	Protection Zone of Architectural Heritage, Urban and Landscape (Zones de Protection du Patrimoine Architectural, Urbain et Paysager)
ABF	National Architect of France (Architectes des Bâtiments de France)		

<UNESCO>

OUV	Outstanding Universal Value		
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Figure 2 Index of Acronym <by author, 2019>

For the analysis, the classification of every heritage sites will be performed as two groups: experimental group (invisible cultural heritage) and comparison group (other types of cultural heritage). Two factors are applied: a), degree of satisfaction of applicant part (developer, landowner, etc.) on building height regulation, and b), degree of satisfaction of reviewing part (reviewer, member of NCHC, etc.) on building height regulation. Two formulas will be applied in the analysis for measuring both factors above.

The permitted rate shows the attitude of the administration part (reviewers, permit authorities) on the existing building height restriction. If the permit rate of a specific group is higher than other groups, the reviewers and the permit authorities would regard that the existing building height regulation is burdensome and need to be alleviated.

For better readability of this paper, acronyms in Figure 2 will be used throughout to mention or state the names of organizations, acts, laws, areas and zones, and terms.

II. A Comparison Study of Buffer Zone Policies: UNESCO, U.S. and France

1. UNESCO: World Heritage Sites and the Buffer Zones

1) Introduction and Development of Buffer Zone in the World Heritage System

When the World Heritage system was introduced in 1972, World Heritage Designation did not include considerations of buffer zones around a site's identified boundary. The "Convention Concerning the Protection of the World Cultural and Natural Heritage" (hereinafter "World Heritage Convention") specifies that the cultural and natural heritage sites on the "World Heritage List" demonstrate an "outstanding universal value (OUV),"¹ satisfying at least one out of ten selection criteria.^{2,3} Yet, neither such a

¹ Convention Concerning the Protection of the World Cultural Heritage and Natural Heritage, November 16, 1972 (adopted), Art. 11 (2).

² Marie-Theres Albert and Birgitta Ringbeck, *40 Years of World Heritage Convention: On the Popularization of a Concept for the Protection of Cultural and Natural Assets* (Walter de Gruyter GmbH & Co KG, 2015), 24.

³ The ten criteria are specified in the Operation Guidelines for the Implementation of the World Heritage Convention, which is published either annually or biannually as below:

(i) to represent a masterpiece of human creative genius; (ii) to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; (iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living, or which has disappeared; (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; (v) to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change; (vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria); (for cultural heritage)

(vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; (viii) to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features; (ix) to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals; (x) to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation. (for natural heritage)

statement nor the ten criteria detail the associated physical requirements of a World Heritage site's designation.

However, in 1977, five years after the effectuation of the World Heritage Convention the World Heritage Committee and the State Parties of the World Heritage Convention introduced the “buffer zone” concept to the World Heritage Site management system.⁴ The State Parties and the World Heritage Committee established the original version of the Operational Guidelines for the Implementation of the World Heritage Convention (hereinafter “the Operational Guidelines”) in 1977 as a implementing tool for the World Heritage system, and a clause introducing the “buffer zone” was also included in the Operational Guidelines. The 1977 Operational Guidelines mention that a buffer zone “may (emphasis added by author) be applied where appropriate where appropriate and feasible.”⁵ However, it did not provide the detailed explanations about what a buffer zone is, nor how it contributes to the preservation of World Heritage Sites. Establishing a buffer zone was an optional component of the nomination of a World Heritage Site.

The prescription of buffer zone in the Operational Guidelines experienced three subsequent revisions: in 1980, in 1988 and in 2005.⁶

The definition of buffer zone was introduced in the 1980 Operation Guidelines, as “an area surrounding the property which has an essential influence on their physical state of the property and/or the way in which the property is perceived.”⁷ The 1980 Operation Guidelines also required the State Parties to submit the detailed information about the

⁴ Charlotte Lake, “Buffer Zones at World Heritage Sites: Recommendations for Implementation and Monitoring Based of the French Experience,” (PhD Diss., University of Florida, 2015), 39.

⁵ UNESCO, *1977 Operational Guidelines*, para 25.

⁶ Lake, “Buffer Zones at World Heritage Sites,” 38.

⁷ The Operational Guidelines for the Implementation of the World Heritage Convention (WHC/2/Revised, October 1980), Para. 12. (UNESCO World Heritage Center).

buffer zone, including “the details on the size and characteristics of buffer zone” and “the map indicating (the buffer zone’s precise boundaries).” However, the 1980 Operation Guidelines allowed the State Parties to establish an “adequate” buffer zone in cases whenever necessary for the proper conservation of the (nominated) cultural/natural property. Setting a buffer zone still depended on the willingness of the State Parties.

The 1988 Operation Guidelines slightly revised the definition of buffer zone, saying “(a buffer zone is) an area surrounding the property which has restrictions placed on its use to give an added layer of protection.”⁸ The new definition stressed the specific management tools (restrictions) of the buffer zone as well as its characteristics, and increased expectations of their protective as well as perceptual benefits.

The buffer zone system in World Heritage Site criteria were substantially changed, yet again, in 2005.⁹ The World Heritage Committee, by modifying the buffer zone part of the Operational Guidelines in 2005, applied a *de facto* compulsory clause for the State Parties to establish buffer zones at World Heritage nominated sites.

The 2005 Operational Guidelines added a new paragraph which requires the burden of proofs to the State Parties to bring justification when the nominations do not bring buffer zones, or when their modification occurs subsequent to listing.¹⁰

⁸ The Operational Guidelines for the Implementation of the World Heritage Convention (WHC/2/Revised, December 1988), Para. 17. (UNESCO World Heritage Center).

⁹ Lake, “Buffer Zones at World Heritage Sites,” 40.

¹⁰ The Operational Guidelines for the Implementation of the World Heritage Convention (WHC 05/2, February 2, 2005, UNESCO World Heritage Committee) paragraph 107 is written as such: “Although buffer zones are not normally part of the nominated property, any modifications to the buffer zone subsequent to inscription of a property on the World Heritage List should be approved by the World Heritage Committee.”

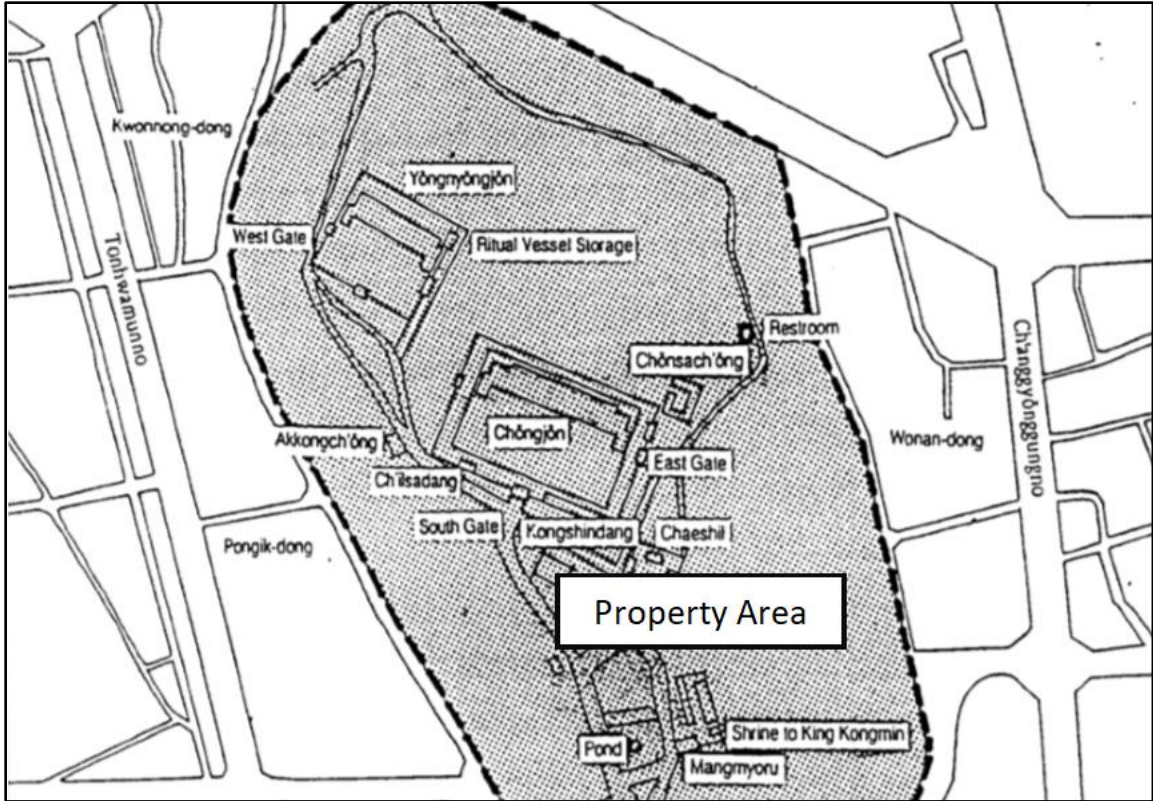


Figure 3 Jongmyo Shrine (South Korea, enlisted in 1995)

<source: UNESCO World Heritage Center, 2019>

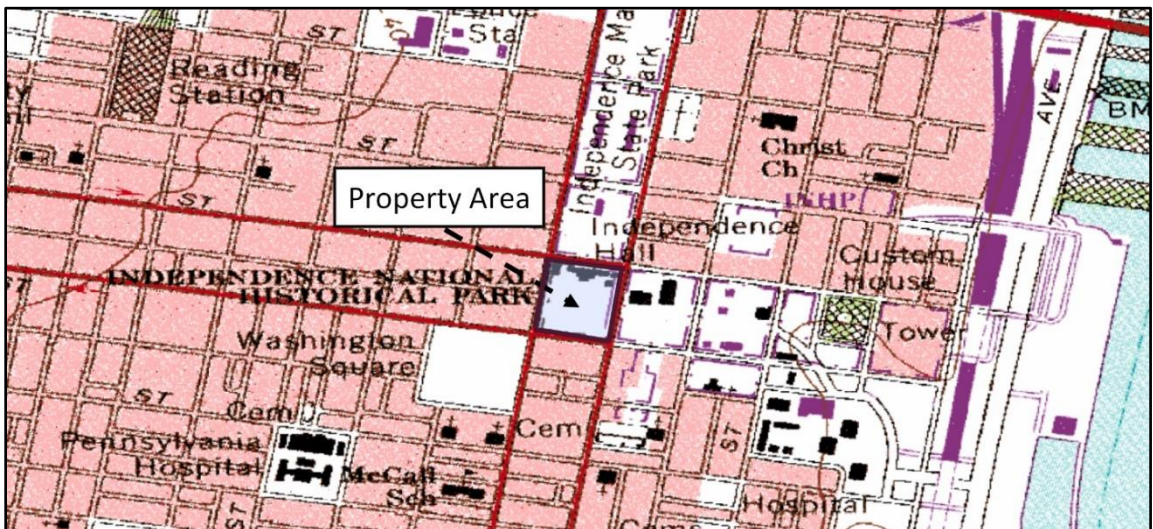


Figure 4 Independence Hall (Philadelphia, PA, United States, enlisted in 1979)

<source: UNESCO World Heritage Center, 2019>

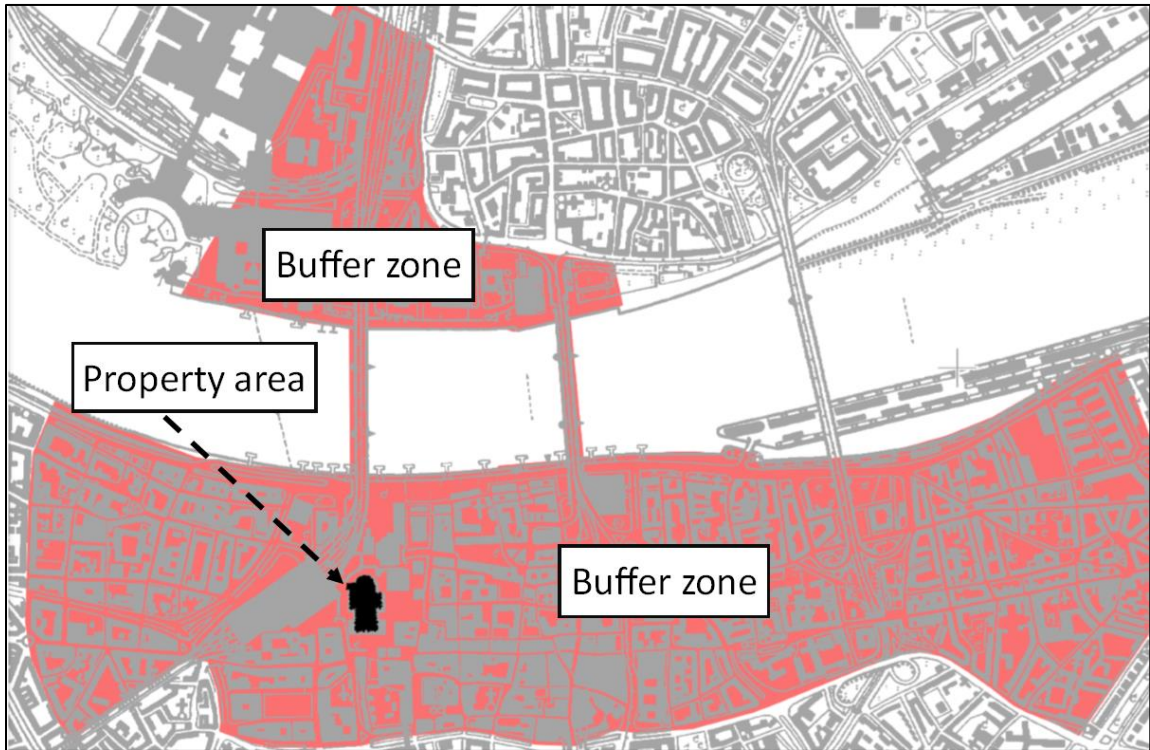


Figure 5 Cologne Cathedral (Germany, enlisted in 1996, modified buffer zone in 2008)
 <source: UNESCO World Heritage Center, 2019>

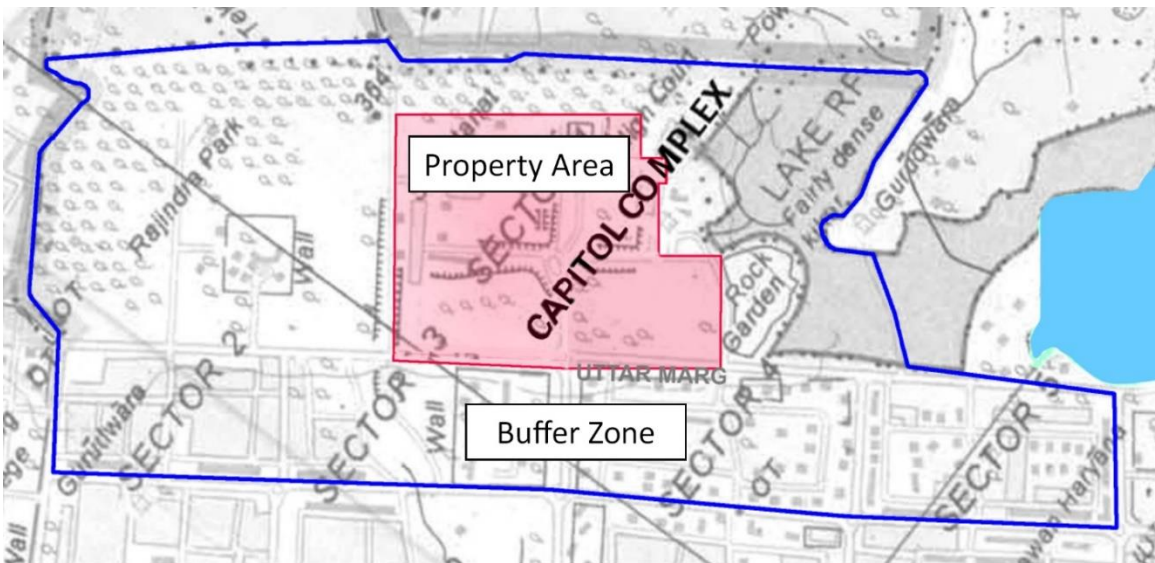


Figure 6 The Architectural Work of Le Corbusier (Argentina, France, India and Japan, enlisted in 2017)
 <source: UNESCO World Heritage Center, 2019>

The 2005 Operational Guidelines also specified the characteristics of a buffer zone as “the immediate setting of the nominated property, important views and other areas or attributes that are functionally important as a support to the property and its protection.”¹¹

Although the World Heritage Committee, with help of the World Heritage Center in UNESCO and its expert groups, tried best efforts to adopt the buffer zone as a crucial tool in World Heritage Site preservation, the State Parties were less cooperative with such notions. The World Heritage Center, in its position paper about buffer zones in 2008, noted that most World Heritage Site listings between 1978 and 1990 do not include the buffer zone around the property area.¹² The identification of a buffer zone is often recommended by the World Heritage Committee in its decisions, though with somewhat weak regulation force on the State Parties. Part et al. (2011) also explains that five historic European cities that were enlisted as a World Heritage Site before 1995 (Istanbul, Edinburgh, London, Moscow and Vilnius) did not incorporate a buffer zone, compared to other historic cities designated as World Heritage Site after 1996 (Vienna, Tallinn, Seville, St. Petersburg, Riga, Prague, Liverpool, Kiev, Cologne, Budapest and Amsterdam), which did.¹³

The four maps above (Figure 3-6) illustrate of the result of the compulsory clause in the 2005 Operational Guidelines requiring buffer zones for nominated World Heritage Sites. Figure 3 (Jongmyo Shrine, South Korea, enlisted to World Heritage Site in 1995)

¹¹ The Operational Guidelines for the Implementation of the World Heritage Convention (WHC 05/2, February 2, 2005), Para. 104. (UNESCO World Heritage Center).

¹² UNESCO World Heritage Center, *World Heritage Papers 25: World Heritage and Buffer Zones* (Paris: UNESCO World Heritage Center, 2009), 60.

¹³ Jae-Hyeon Park and So-Hyun Park, “Delineating Conditions and Operating Mechanisms for the Buffer Zones of World Heritages located in City Centres,” *Journal of Architectural Institute of Korea* 31, no. 2 (2011): 363.

and Figure 4 (Independence Hall, United States of America, enlisted to World Heritage Site in 1979) are the examples of the World Heritage Site designated before 2005; both maps contain only the property area (Figure 3: black broken lines and grey shade, Figure 4: blue solid line with purple shade), but neither includes a buffer zone. However, Figure 5 (Cologne Cathedral, Germany, enlisted in 1996 and modified boundary in 2008) and Figure 6 (The Architecture Work of Le Corbusier (part), Argentina, France, India and Japan, enlisted in 2017) include buffer zones that surround the site areas. The Le Havre map displays the boundary of the buffer zone with a red broken line, whereas the map of Le Corbusier building sites marks the buffer zone with a blue solid line.

2) Operation of Buffer Zone in World Heritage Site

a) State Parties as operating bodies

As mentioned above, the World Heritage Committee suggests brief guideline about the characteristics and functions of the buffer zone, and about how it should be treated and managed. According to the 2005 Operational Guidelines, a buffer zone, as an added layer which surrounds the (nominated) property area, contains the immediate setting, protects important view(s), and therefore takes on an important function for supporting the perception and protection of the (nominated) property.

The buffer zone should be managed by either legal or customary complementary use and/or development restrictions. Therefore, most of the practical works, such as zoning, or establishing and operating other such regulation and management, should be done by the State Parties that have jurisdictions on the Cultural Heritage Sites.

It depends on the condition of each State Party which level of administrative powers have the priority in managing the buffer zone. For example, for the World

Heritage Sites in Germany, the major role is given to the local government. In contrast, rather than local government, the central government of South Korea retains a superior power for its World Heritage Sites and their buffer zones.

b) Role of the World Heritage Committee

The World Heritage Committee, as a subsidiary organization of UNESCO, is not empowered to intervene in the State Parties' jurisdiction on buffer zone. However, the World Heritage Convention and the related legislations authorize the World Heritage Committee to monitor the activities of the State Parties by examining the World Heritage management report, and by managing the buffer zone system by developing the Operational Guidelines. The World Heritage Committee can also call on State Parties that poorly counteract against development activities within the buffer zone, by inscribing the related World Heritage Site on the "List of World Heritage in Danger."

3) Case Study: Adverse Impact of Poor Buffer Zone Management and the Status of World Heritage Site

a) Overview

The World Heritage Center, an advisory body of the World Heritage Committee, announced in its 2008 UNESCO World Heritage paper about buffer zones that 163 World Heritage Sites were on the List of World Heritage in Danger in the year of 2007 (out of a total of 851).¹⁴ It adds that 73 sites (44.8%) out of the 163 sites were given the "in Danger" status because of problems resulting from poor buffer zone management.¹⁵ The World Heritage Center argues that the World Heritage Committee considers the

¹⁴ The List in Danger was presented during the 31th session of the World Heritage (Christ Church, New Zealand, June 23 – July 2, 2007).

¹⁵ UNESCO, *World Heritage and Buffer Zones*, 62.

buffer zone management as a crucial tool for “enhancing the protection and integrity of Word Heritage Sites.”¹⁶

Among the 73 cases of poor buffer zone management in the List of the World Heritage in Danger, “Visual Impact” issues (26 case, 35.6%) turned out to be the most frequent problem. Other issues included problems such as unclear buffer zone boundaries (15 cases, 20.5%), problems with boundary modification by the State Party (10 cases, 13.7%), problems with no buffer zone (12 cases, 16.4%), urban/economic development pressure (12 cases, 16.4%) and poor legislation and/or management problem (16 cases, 21.9%) were also pointed out as major issues of the Cultural Heritage in Danger.^{17,18} These are illustrated in Figure 7 below.

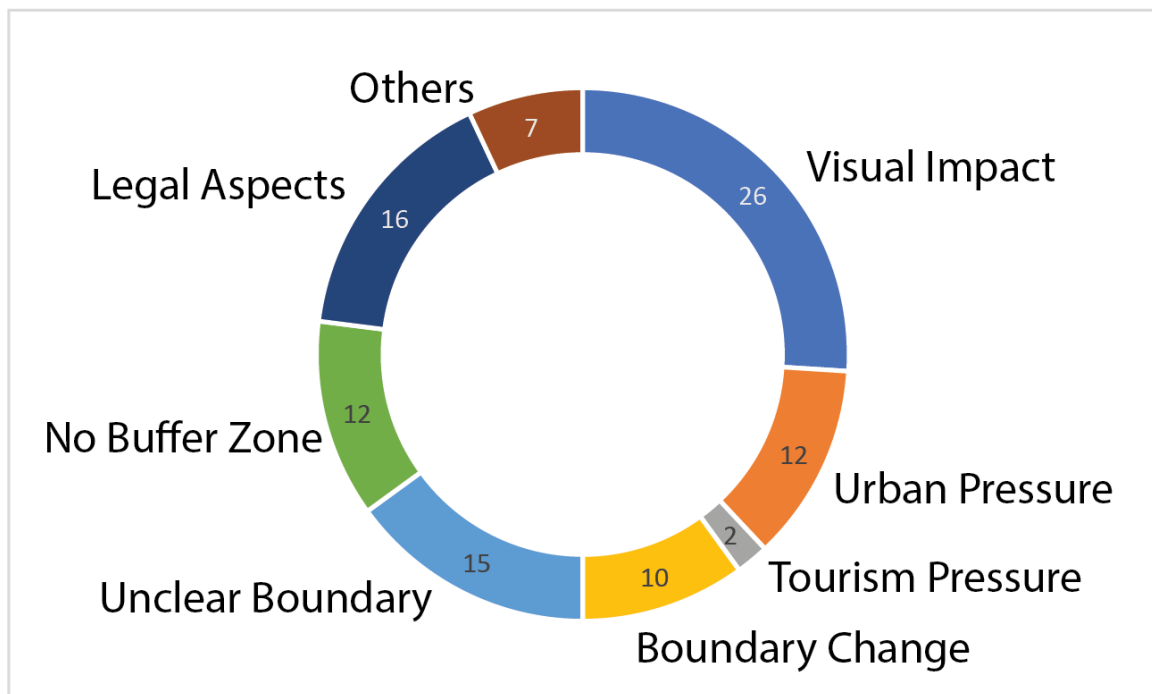


Figure 7 Number of Buffer Zone Issues on the List of World Heritage in Danger (2007)
<source: UNESCO World Heritage Center, "World Heritage and Buffer Zone," 2009>

¹⁶ UNESCO, *World Heritage and Buffer Zones*, 62.

¹⁷ UNESCO, *World Heritage and Buffer Zones*, 62.

¹⁸ Many of the sites Listed on the World Heritage were indicated to have more than two deficiencies.

The World Heritage Center categorizes visual impact, urban pressure and tourism pressure into ‘urban developments within buffer zone.’ It points out that the strong visual impact of high-rise building turned out to be the biggest problem that the World Heritage Sites are struggling with concerning urban development. The changes in a city from economic development and the associated increase in density in the buffer zone by tourism and other pressures are also considered to cause harmful impact to the World Heritage sites.¹⁹

b) Historic Center of Vienna: World Heritage in Danger due to visual impact
with the high-rise building construction plan

The Historic Center of Vienna in Austria was inscribed into World Heritage Site in 2001, satisfying criteria (ii), (iv) and (v).²⁰ However, long-time conversations concerning the adverse impacts resulting from high-rise building (Vienna Ice-Skating Club and Hotel) in the buffer zone arose during the sessions of World Heritage Committee since 2002. The World Heritage Committee warned that the height of the building within the buffer zone would result in an adverse impact on maintaining the OUV that the Historic Center of Vienna contains. Although the stakeholders such as the developer groups and the city authority tried to mitigate the problem and suggested revised draft plans to lessen the building height, those failed to satisfy the requirement of the World Heritage Committee, and the Historic Center of Vienna was finally inscribed

¹⁹ UNESCO, *World Heritage and Buffer Zones*, 64.

²⁰ Criterion (ii): The urban and architectural qualities of the Historic Centre of Vienna bear outstanding witness to a continuing interchange of values throughout the second millennium.

(iv): Three key periods of European cultural and political development – the Middle Ages, the Baroque period, and the Gründerzeit – are exceptionally well illustrated by the urban and architectural heritage of the Historic Centre of Vienna.

(vi): Since the 16th century Vienna has been universally acknowledged to be the musical capital of Europe.

into the List of the World Heritage in Danger in 2017.



Figure 8 View of the City of Vienna (from the Belvedere Palace)
(up: original view, down: rendering view with the building reconstruction)
<source: Martin Kupf, 2007>

2. U.S.: National Historic Preservation Act Section 106 Review Process

1) Overview

Whereas UNESCO and most of the European countries adopted buffer zones as a tool to enhance preservation of historic buildings, cities and the sites, the United States has not yet considered explicitly introducing the buffer zone concept in the preservation legislation. However, the National Historic Preservation Act (hereinafter the NHPA), established in 1966, comes closest to doing so, in that it enables control or management

of some types of construction activities either within or out of the boundary of identified historic resources, as a way to minimize and, if possible, eliminate adverse effects on the historic resources.

The enacting of the NHPA in 1966 contributed to professionalizing key aspects of the historic preservation system of the United States, by, for example, stipulating the establishment of the National Register of Historic Places, creating a grant program, strengthening a legal basis for the National Trust for Historic Preservation, establishing the State Historic Preservation Office (SHPO), the Tribal Historic Preservation Office (THPO) and other preservation officers, and imposing responsibilities on Federal agencies for the preservation and management of historic properties.²¹

2) Section 106 Review

a) Federal Undertaking: a trigger of the Section 106 review process operation

The Section 106 review process is applied only for the projects, activities or programs involving Federal “undertakings,” defined as “a project, activity, or program either funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.”²² That is to say, any actions that any Federal agency is either directly or indirectly implementing, including through federal funding or permits, needs to have an Section 106 review. Also, any actions by non-federal entities which needs permit,

²¹ U.S. Library of Congress, Congressional Research Service, *A Section 106 Review Under the National Historic Preservation Act (NHPA): How It Works*, by Mary Kristina Alexander. RL42538 (2013), 2.

²² “Protection of Historic Properties,” Code of Federal Regulations, title 36, § 800.16 (y) (2004).
https://gov.ecfr.io/cgi-bin/text-idx?SID=99743e75c5572ea5b7654c331d44d5d6&mc=true&node=pt36.3.800&rgn=div5#se36.3.800_116

approval or license by the Federal agencies typically require their participation in the Section 106 review process.

To put it simply, any projects involving federal engagement must participate in the Section 106 review process.²³ Conversely, the construction projects without federal engagement cannot be controlled by the NHPA Section 106 review process.

b) Explanation of the Section 106 Review Process

The review process includes the following required steps: a) establish the undertaking and initiate section 106 process, b) identify and evaluate historic properties, c) assess effects to historic properties, and d) resolve any adverse effects.

As mentioned above, the proposed action should be identified as a Federal undertaking by the head official of a Federal agency in charge. The Federal officials may authorize the non-Federal entities that requires federal assistance, or an approval, license, or permit as applicants^{24,25}, and the authorized applicants are required to carry out all the procedures that the section 106 review requires.²⁶ At the first step, the Federal agency, in cooperation with the applicants, should determine the appropriate public expert entities – always including the SHPO and/or THPO - who will engage with the review process and identify the parties for the consultations – known as the official “consulting parties” in a particular 106 review.

When the consultation groups are determined, the applicants move to the next

²³ U.S. Library of Congress, Congressional Research Service, *A Section 106 Review*, 4.

²⁴ “Protection of Historic Properties,” Code of Federal Regulations, title 36, § 800.2 (f) (2004).

https://gov.ecfr.io/cgi-bin/text-idx?SID=99743e75c5572ea5b7654c331d44d5d6&mc=true&node=pt36.3.800&rgn=div5#se36.3.800_12

²⁵ Example of applicants can be a developer, a state department in charge of transportation, energy commerce, community affairs, or a landowner.

²⁶ Advisory Council on Historic Preservation, “Section 106 Applicant Toolkit,” Accessed March 19, 2019. <https://www.achp.gov/digital-library-section-106-landing/section-106-applicant-toolkit>

step: identifying and evaluating historic properties that might be affected by the undertakings. The applicants, in this round, should define whether any historic properties exist within the project's Area of Potential Effects (APE)²⁷. APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist,"²⁸ and the physical boundaries of the APE are determined by the agency official in consultation with SHPO/THPO,²⁹ with consideration of "the scale and nature of an undertaking." It "may be different for different kinds of the effects caused by the undertaking."³⁰

After the APE is identified, investigation of historic properties within it is performed. Historic properties are defined as the prehistoric/historic districts, sites, buildings, structures, or objects that are either on or eligible³¹ for the National Register of Historic Places. This component of the 106 process is thus in essence the establishment of a buffer zone around the historic property of the "undertaking."

Assessment of the effect on the historic properties is conducted in the next step. The applicants, in cooperation with the SHPO and/or THPO and identified consulting parties perform the assessment and determine the project's effect on the historic resources

²⁷ "Protection of Historic Properties," Code of Federal Regulations, title 36, § 800.4 (b) (2004).

https://gov.ecfr.io/cgi-bin/text-idx?SID=99743e75c5572ea5b7654c331d44d5d6&mc=true&node=pt36.3.800&rgn=div5#se36.3.800_14

²⁸ "Protection of Historic Properties," Code of Federal Regulations, title 36, § 800.16 (d) (2004).

https://gov.ecfr.io/cgi-bin/text-idx?SID=99743e75c5572ea5b7654c331d44d5d6&mc=true&node=pt36.3.800&rgn=div5#se36.3.800_116

²⁹ "Protection of Historic Properties," Code of Federal Regulations, title 36, § 800.4 (a) (2004).

https://gov.ecfr.io/cgi-bin/text-idx?SID=99743e75c5572ea5b7654c331d44d5d6&mc=true&node=pt36.3.800&rgn=div5#se36.3.800_14

³⁰ "Protection of Historic Properties," Code of Federal Regulations, title 36, § 800.16 (d) (2004).

https://gov.ecfr.io/cgi-bin/text-idx?SID=99743e75c5572ea5b7654c331d44d5d6&mc=true&node=pt36.3.800&rgn=div5#se36.3.800_116

³¹ In case the historic properties are not in the list of the National Register of Historic Places (NRHP), the Federal Agency in consultation with the SHPO/THPO determine whether those meet the NRHP eligibility.

and its APE: either “no effect,” or “no adverse effect,” or “adverse effect.” If the result concludes that no adverse effect would be expected, the review process is complete.³²

However, if the assessment concludes that any adverse effects would result from the proposed undertaking, the Federal agencies, the SHPO/THPO and other consultation parties should conclude an agreement of a revised plan to resolve (avoid, minimize or mitigate) the adverse effect, including identifying the roles and responsibilities of the Federal agency and the consulting parties.³³ The Advisory Council of Historic Preservation (ACHP) may issue formal comments to the Federal agencies if the agreement is not reached.³⁴

3) Comparison between the NHPA Section 106 Review and Buffer Zone system

Both the NHPA Section 106 review process and buffer zone system performs similar functions: managing and controlling any adverse or harmful activities within the immediate environment of historic resources. As compared to the general concepts of buffer zone systems, however, the NHPA Section 106 review program contains several distinctive differences.

First, a defined, dimensioned, and/or capped physical boundary or limit is not a prerequisite for the NHPA Section 106 process. The UNESCO World Heritage Operation Guideline defines a buffer zone as “an area surrounding the nominated property,” and requires that a buffer zone should contain not only the precise boundaries indicated on a map but also the details on the size, characteristics and authorized uses.³⁵ However, such

³² U.S. Library of Congress, Congressional Research Service, *A Section 106 Review*, 11.

³³ Usually the forms of MOA (memorandum of agreement) or PA (programming agreement) are used as agreement documents. U.S. Library of Congress, Congressional Research Service, *A Section 106 Review*, 11.

³⁴ Advisory Council on Historic Preservation, “Section 106 Applicant Toolkit,” Accessed March 19, 2019. <https://www.achp.gov/digital-library-section-106-landing/section-106-applicant-toolkit>

³⁵ The Operational Guidelines for the Implementation of the World Heritage Convention (WHC 05/2,

a precise and pre-established physical limit is not necessary in the NHPA Section 106 review process. It is enough for the historic properties to be located within the APE (areas of potential effects) of a Federal undertaking project. Moreover, the boundary of an APE is not arranged beforehand but is rather defined during the Section 106 review process by the consultation with the Federal agency in charge, the applicants, the SHPO (or the THPO) and the stakeholders.

Second, the Section 106 process is only applied to the activities of a public engagement (Federal undertaking). In other words, it has no impact on any activities by private parties that are not either supported by Federal grant or financial aid, or controlled by Federal entities with approval, license or permit. Contrary to the Section 106 case, it does not generally matter whether it is performed or managed by either public part or private one.

Third, the Section 106 review process is more dependent on concluding the results by the negotiation among the stakeholders. As mentioned above, expert entities such as the SHPO (or the THPO) and stakeholders (historic committee, general public) as well as the main actors such as a Federal agency and the applicants (developers, land owners) are participating in all steps on the review process. Also, all participants freely suggest their idea and opinions during the review process and thus equally contribute to the concluding the result. For not a few buffer zone areas in other countries, the management is much more dependent upon specific regulations rather than negotiation or consultation. In such instances, the administrative parties have the superior power of setting the rule and allowing whether an (construction) activity should be allowed or not.

February 2, 2005), Para. 104. (UNESCO World Heritage Center).

The applicants do not have any power to involve the process, but just follow the restriction and regulation.³⁶ In essence, Section 106 requires a process, not an outcome.

3. France: Protection Perimeter of Historic Sites

1) Introduction

What is unique with cultural heritage preservation policy in France is that the buffer zones of all French cultural heritage contain a uniform round shape. Whereas the buffer zones of World Heritage Sites, discussed in Section II -1, are shaped in an amorphous way, all French buffer zones are shaped like a circle with a radius of 500 meters. Such a unique buffer zone form is also found in South Korea and which will be discussed later this paper. It is therefore essential to look at the structure of the French buffer zone system as a comparative case study.

2) Historic Resources Zoning System in France

The French government has established four types of zoning areas for protecting and preserving its historic resources: a) (inscribed and/or designated) Historic Sites, b) Surroundings of Historic Sites (Abords des Monuments Historiques), c) Protected Sector (Secteurs Sauvegardés) and d) Areas of Enhancement of Architecture and Heritage (aires de mise en valeur de l'architecture et du patrimoine, AVAP).³⁷

Broadly compared to the cultural heritage management system in the U.S., such historic site designations correspond to the registered historic sites (Designated Historic

³⁶ Most countries allow the applicants to raise objection of the regulations by litigating the disputes to the court.

³⁷ Ministry of Culture and Communication, *The Different Types of Protected Areas: Factsheet 01*, (Paris: Ministry of Culture and Communication, 2012), 2.

Sites in national/state and local level, National Historic Landmarks) and National Parks. The AVAP and the Protected Sector has an analogical function with (national or local) historic districts. However, no similar zoning system to the Surroundings of Historic Sites is found in the States. Nonetheless, the Section 106 review process enlisted under the National Heritage Protection Act (NHPA) performs a similar if only broadly overlapping role as France's Surroundings of Historic Sites system in its consideration of the Area of Potential Effect ("APE") of a proposed Federal undertaking, and by mitigating and regulating adverse effects.

a) Introduction of the Buffer Zone for Ensuring the Visibility of Historic Site
(1943-)

Contrary to its surrounding countries such as Germany, Netherland and Switzerland, and most of the Western countries, France has a highly centralized government. Its distinctive political and administrative system has enabled the French central government to play a leading role in the historic preservation field since the 19th century, and this tradition was maintained during the 20th century, in particular with the adoption of the 'Act of the Historic Sites (La loi du 31 décembre 1913 sur les monuments historiques),' which authorized a superior power to the government on designation and management of historic resources.³⁸

In 1943, the French Government adopted an amendment to the 1913 Historic Sites Act ("Loi n° 92 du 25 février 1943 portant modification de la loi du 31 décembre 1913 sur les monuments historiques"), introducing the 'buffer zone' around both inscribed and designated historic sites. Under the amended law, the government can set

³⁸ Poirrier, Philippe, "Heritage and Cultural Policy in France under the Fifth Republic," *International Journal of Cultural Policy* 9, no. 2 (2013): 218.

up a buffer zone within a boundary of no less than 500 meters measured from the boundary of the designated and/or inscribed historic sites as a “field of visibility” (champ de la visibilité) and prescribe the field as a “public utilities easement” (les servitudes d’utilité publique).³⁹ The French buffer zone is called either the “Surroundings of Historic Sites” (les abords des monuments historiques) or the “Protected Area” (périmètre de protection).⁴⁰

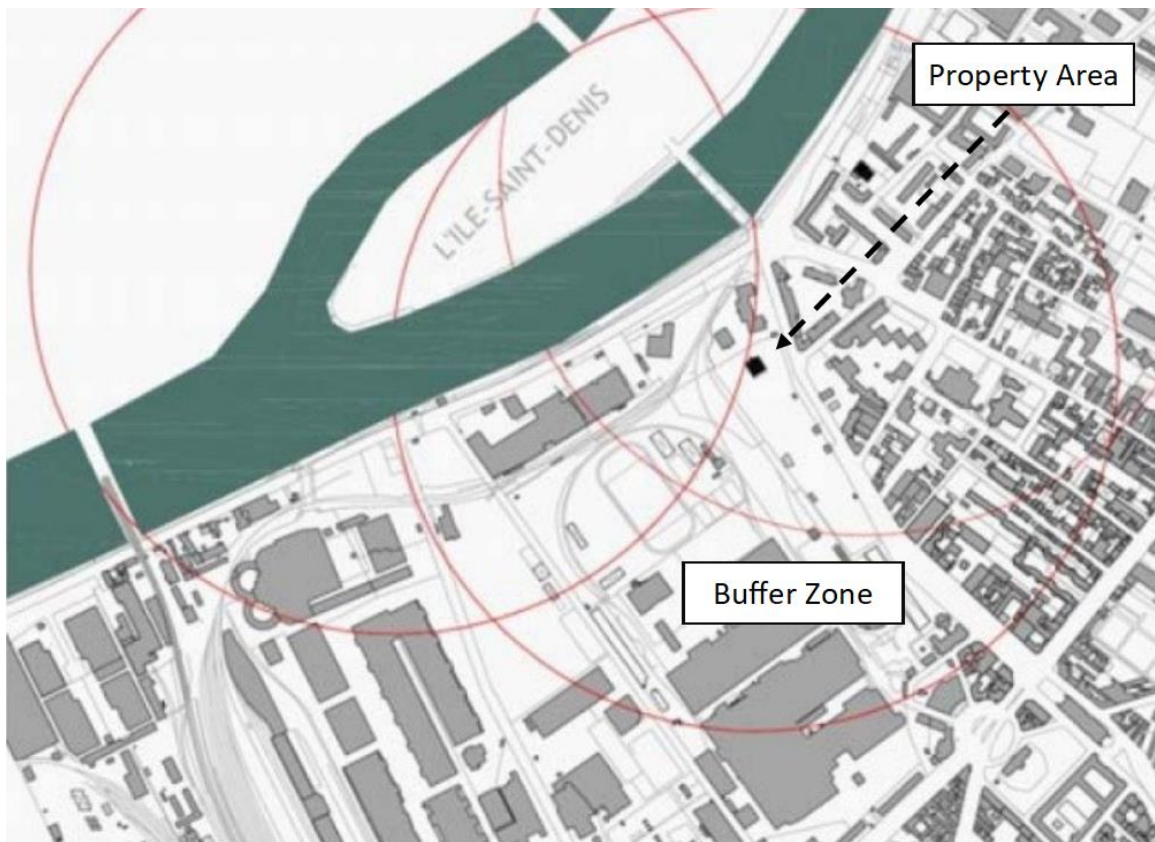


Figure 9 Example of the Surrounding of Historic Monuments

(circle-in-red: Surrounding of Historic Site, black: Historic Site)

<source: City of Saint-Ouen, France, 2012>

³⁹ The concept of the easement in France is similar to that of the utility or right-of-way easement in the United States (and not to a façade easement). The French government set up the easement as applicable to the areas for the purpose of natural resources management, national defense, sanitation, public safety, and/or historic resources preservation.

⁴⁰ Ministry of Culture and Communication, *The Different Types of Protected Areas: Factsheet 01*, (Paris: Ministry of Culture and Communication, 2012), 2.

b) Adoption of Multiple Types of Historic Preservation District and the Change of the French Buffer Zone Management System

a. Protected Sector (Secteurs Sauvegardés: SS)

After World War II ended, the French government became interested in restoring razed historic villages and destroyed historic sites, as well as preserving the urban fabric of survived cities and villages such as Paris, Arles, Angers and Poitiers. In 1962, André Malraux, Minister of Cultural Affairs in the Charles de Gaulle administration and well-known French writer, submitted a bill, known as the “Malraux Act (Le Loi Malraux)”, which contained the establishment of the “Protected Sector” (Secteurs Sauvegardés: SS) for the historic villages.

In this Act, the Cultural Ministry, together with the local government in charge, was required to set up a Preservation and Promotion plan (PSMV: Plan de Saevegardé et de Mise en Valeur) for each Protected Area (SS). The plan was to include the detailed map and guidelines that prescribes classification of all the buildings in the area, considering the historic significance, physical condition, level of contribution to the historic value of the village/district on multiple levels, and then applying the degree of protection considering the condition of each buildings. Besides the detailed management rules on the buildings, the PSMV plan could include urban and natural elements, such as streets and green spaces, and set up guidelines or regulations on such elements.

b. Areas of Enhancement of Architecture and Heritage (Aires de Mise en Valeur de l’Architecture et du Patrimoine, AVAP)

The French government implemented an extensive administrative reform in 1983, with the agreement of passing the “Act of the Redistribution of the Powers among the

Communes, the Departments, the Regions and the State (Loi n° 83-8 du 7 janvier 1983 relative à la répartition des compétences entre les communes, les départements, les régions et l'Etat).” The Act required some of the administrative powers of the State level to be handed over to local governmental entities, including some of the administrative power for historic preservation, which was also handed over by this act, enabling the local governments - the Communes – to establish “Protection Zone of Architectural Heritage, Urban and Landscape (ZPPAUP: Zones de Protection du Patrimoine Architectural, Urbain et Paysager).”⁴¹ The boundary of a ZPPAUP is usually set up with a shape of a polygon, considering and derived from the historic characteristics of either one community or multiple communities. Historic buildings and structures, urban space and the landscape are essential elements for determining the boundary of a ZPPAUP. The Communes in charge of the ZPPAUP must also establish a management plan about the contributing elements. The Act allowed local governments to replace the 500-meter rule by the ZPPAUP in case the ZPPAUP embraces either designated or inscribed historic sites.

The Areas of Enhancement of Architecture and Heritage (Aires de Mise en Valeur de l'Architecture et du Patrimoine, AVAP), introduced in 2010, was the next version of the ZPPAUP. The basic concept of the AVAP is similar to ZPPAUP, but the principle, ‘sustainable development’ is included in the AVAP. The Communes in charge, when managing construction projects within the area, should consider the value of sustainable development, such as energy efficiency of new construction, sustainable use of the vacant spaces and so on. By 2015, the ZPPAUPs were replaced by AVAPs.

⁴¹ The governors (préfet) of the Regions, who serve as the local governmental entity on the upper-level, retain ultimate authority to approve the ZPPAUP draft that the Communes are producing.

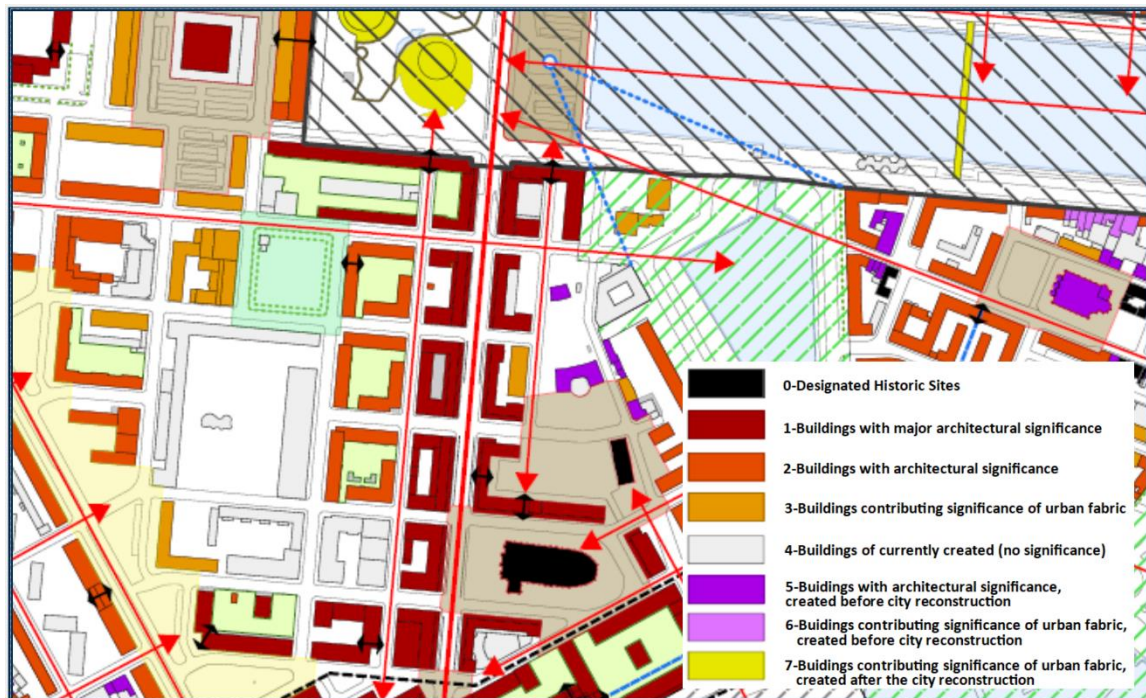
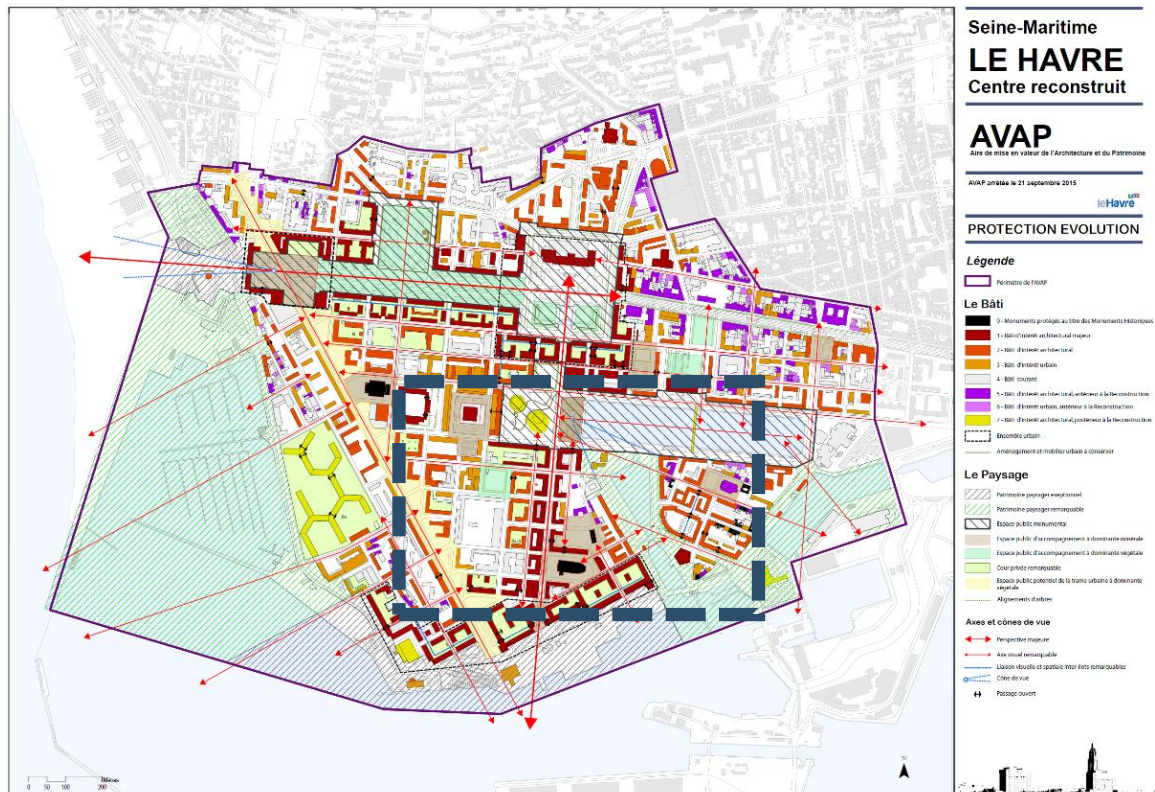


Figure 10 and 11 are the examples of the AVAP map of Le Havre, one of the World Heritage Sites in France. The map (Figure 10 and 11) classifies the buildings into 7 levels and divides the landscape and public spaces into multiple levels by the degree of contribution of each area to the historic value and character of the city. The map also defines view corridors as one of the major elements of AVAP. For each group of buildings that are marked with different a color, different level of regulations and guidelines on building rehabilitation, alternation, reconstruction is applied. For the designated cultural sites (level 0, marked with black), reconstruction is strictly prohibited, and alternation is only allowed when the French government issues permission. For the buildings belonging to level 1, 2, 3, reconstruction activity is also prohibited, and alternation is only allowed only if the City of Le Havre approves. In contrast, reconstruction is allowed to the buildings of level 4, but only when the reconstruction plan is admitted by an ABF in the City to be in harmony with the urban landscape.

3) Management of Buffer Zone in France

a) Prerequisite factor: Designated and/or Registered Historic Site

The Act of Historic Sites allows only historic sites that are either designated or registered to have its own buffer zone. According to the Cultural Ministry of France, approximately 43,600 historic sites have been classified as designated (14,100 sites) or registered (29,500 sites) cultural site, and thus are protected at the time of the Act's passage – i.e. by February 2015,⁴² most of which are buildings such as cathedrals, castles, official buildings, and historic houses.⁴³

⁴² Ministry of Culture of France, "Historic Sites," Accessed March 29, 2019. <http://www.culture.gouv.fr/Thematiques/Monuments-historiques-Sites-patrimoniaux-remarquables/Presentation/Monuments-historiques> (accessed Mar 29, 2019)

⁴³ In contrast, South Korea's Cultural Heritage Protection Act allows all type of cultural heritage on the

Moreover, French archaeological sites, such as prehistoric sites and megalithic sites, that are also protected and preserved by designation and registration are not allowed to have their own buffer zone. The Act of Historic Sites excludes archeological sites from the list of cultural sites to which a buffer zone is allowed.⁴⁴ And a buffer zone is not applied to (designated or inscribed) natural monuments either.⁴⁵

b) Boundary of the Protected Area: 500 meters in principle

The Act of Historic Sites defines that the field of visibility (*champ de la visibilité*) where the Protected Area is applied “is within 500 meters from a designated and/or inscribed historic site (*situé dans un périmètre n'excédant pas 500 mètres*).” Still, the National Council, the legislation body of France, can either extend or delimit the range of the Protected Area by issuing a decree.^{46, 47}

c) What is considered: visibility and co-visibility

When reviewing a construction activity plan within the Protected Area, two concepts are considered: visibility (*visibilité*) and co-visibility (*covisibilité*). If it is expected that a new building will be visible when completed from a major point of view to the historic site, the building is considered to have visibility. On the other hand, if both buildings under construction and the historic sites are to be seen in a certain point of view

ground, including natural resources and archeological sites, to have their own buffer zone (details of the buffer zone of South Korea will be introduced in Section II-2) buffer zone rule is only required for cultural assets that are visible such as buildings and structures.

⁴⁴ La loi du 31 décembre 1913 sur les monuments historiques (Law No. 2000-1208, 2000), Art 1 (Republic of France).

⁴⁵ Natural sites are designated (on the national level) or inscribed (on the local level) as the same way the historic sites are. The designation and inscription activities on the natural sites are based on the “Preservation Act on the Natural Sites and Artistic, Historic, Scientific, Legendary and Picturesque Sites » (La Loi du 2 mai 1930 ayant port objet de réorganiser la protection des Monuments naturels et des sites de caractère artistique, historique, scientifique, légendaire or pittoresque).

⁴⁶ La loi du 31 décembre 1913 sur les monuments historiques (Law No. 2000-1208, 2000), Art 1 (Republic of France).

⁴⁷ In that case, the National Council should hear the opinion of the Superior Commission of Historic Monuments (*commission supérieure des monuments historiques*) before issuing the decree.

within the Protected Area, the building has a co-visibility. When the reviewing process of the building permit within the Protected Area, those factors – visibility and co-visibility – should be considered (see Figures 12 and 13).

The reviewing process is performed by the Architects appointed by the Ministry of Culture and Communication of France. Called as ABF (Architectes des Bâtiments de France), those architects review the construction projects within their jurisdiction and submit the opinion on the building permission.

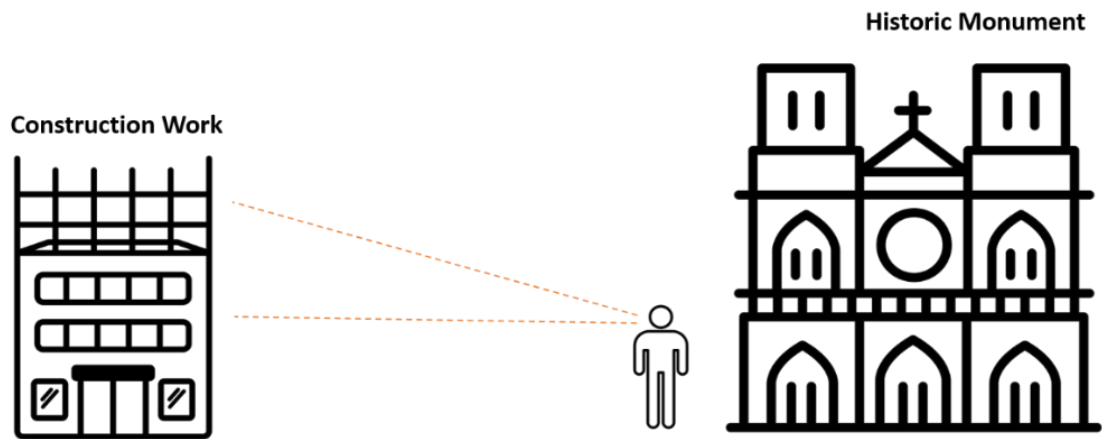


Figure 12 Visibility – from Historic Site <by author>

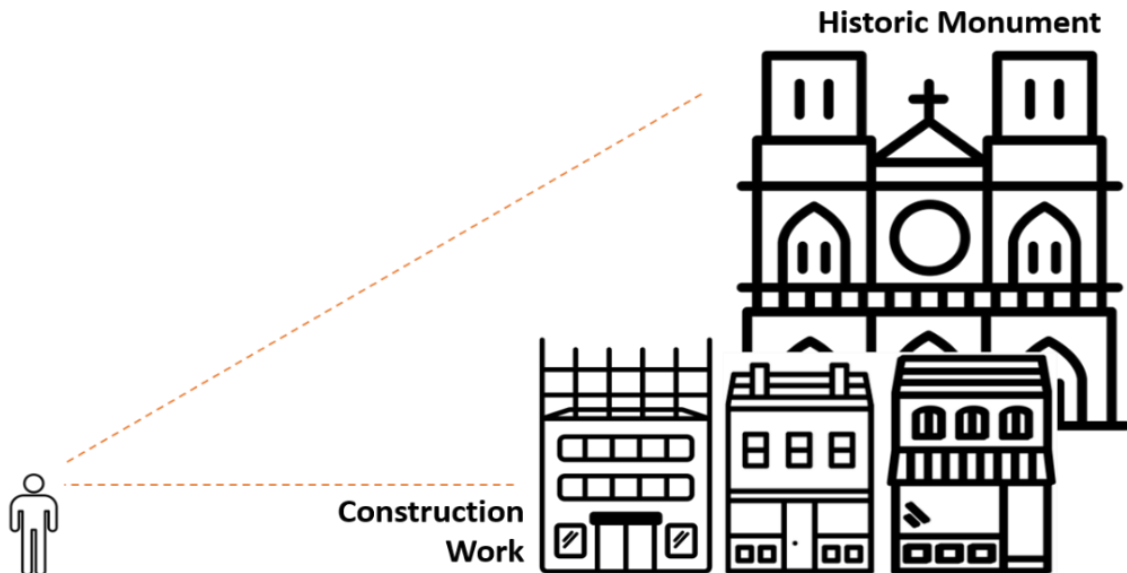


Figure 13 Co-Visibility – From Historic Site <by author>

If the construction plan under review is considered to involve at least one factor (visibility or co-visibility), the opinion of ABF has a binding force when the mayor (maire) of the Commune issues a building permit. If the mayor opposes the opinion of the ABF, he or she should file a petition to the governor (préfet) of the Region, the higher administrative agency. The ABF can also submit an opinion on those building construction cases that do not have either a visibility or a co-visibility issue to the mayor of the Commune. In that case, the mayor does not have to follow the ABF's opinion.

III. Overview of the South Korean Preservation System and Its Development

1. Cultural Heritage Preservation Mechanism of South Korea

1) Overview of the South Korea Heritage Preservation System

a) Cultural and Natural Heritage in South Korea and the Classification

Since its enactment in 1961, the Cultural Heritage Protection Act (hereinafter the CHPA), has been the fundamental law on historic preservation in South Korea. Its associated legislations have basically classified cultural resources under four large groups: 1) tangible cultural heritage, 2) intangible cultural heritage, 3) monument and 4) folklore heritage (summarized in Figure 14).

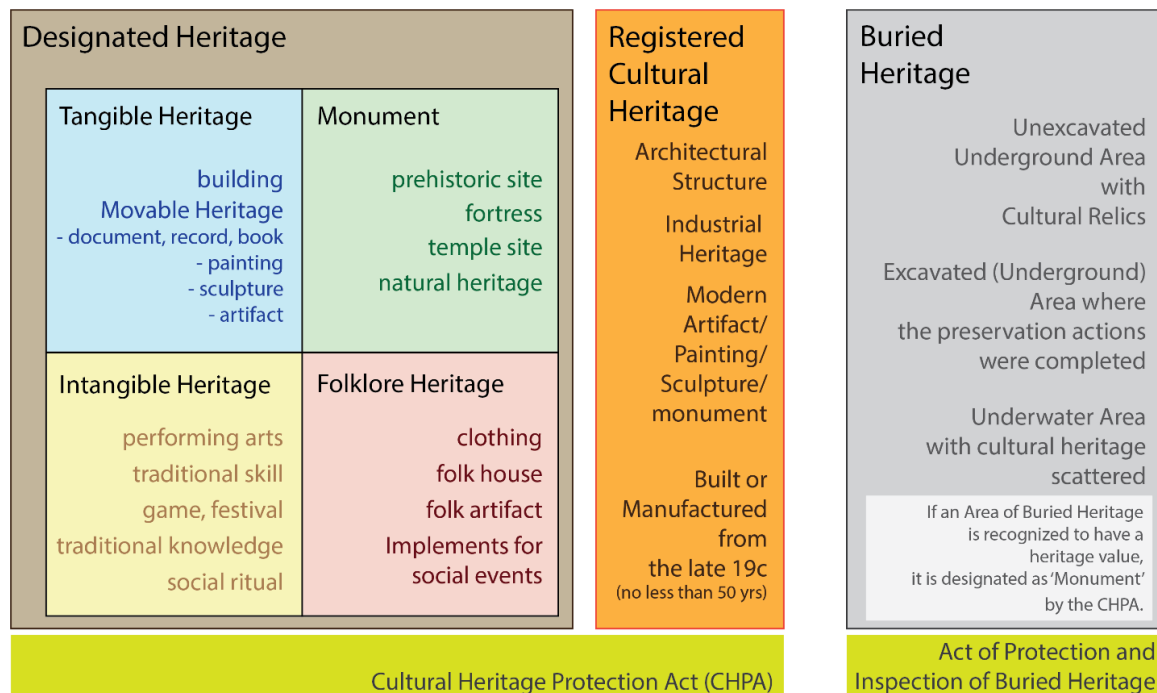


Figure 14 Classification of South Korean Cultural Heritage
 <by author, source: Cultural Heritage Administration, South Korea, 2019>

In detail, tangible cultural heritage is divided by (historic) building and movable cultural heritage. The former includes historic houses, buildings, pagodas, etc., while movable cultural heritage includes records, books, ancient documents, paintings, sculptures, artifacts, and other archeological resources that have been recovered through excavation.⁴⁸

As shown in Figure 14, monuments include, within the “designated heritage” category, both cultural and natural heritage, whereas UNESCO, France and many other countries separate those two different types of heritage. The CHPA classifies historic sites, scenic sites and natural monuments into the category of “monument.” Historic sites include prehistoric sites, fortresses, ancient tombs, kiln sites, dolmens, temple sites, and natural monuments contains animals, plants, minerals, caves, geological features, biological products.⁴⁹ Scenic sites are the places with artistic value with excellent scenic view.⁵⁰

In Korean preservation policy, whereas “designated heritage” aims for preserving significant cultural heritage that had been created before the late 19th century including prehistoric, ancient and Medieval era, “registered cultural heritage” contains industrial structures and inventions, and modern style buildings and structures that were recently created. Details of “registered cultural heritage” are discussed further on page 38-40.

The notion of designated intangible cultural heritage and folklore heritage is hardly found in the preservation policies of most Western countries. In Korea, as shown in Figure 14, “intangible cultural heritage” is defined as “traditional performing arts, craft

⁴⁸ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 2-(1)-1 (Republic of Korea).

⁴⁹ Cultural Heritage Protection Act (Law no. 15827, 2019), Art 2-(1)-3-(a) and (c). (Republic of Korea).

⁵⁰ Cultural Heritage Protection Act (Law no. 15827, 2019), Art 2-(1)-3-(b) (Republic of Korea).

manufacturing skills, traditional knowledge, oral traditions and expressions, traditional ways of food, cloth, shelter manufacturing, social rituals, traditional games, festivals, practical and martial arts which have been passed on throughout many generations.”⁵¹

Folklore resources are introduced to classify the movable and building heritage highly related to the folklife of the Korean ancestors, such as clothing, implements, houses, and religious artifacts.⁵²

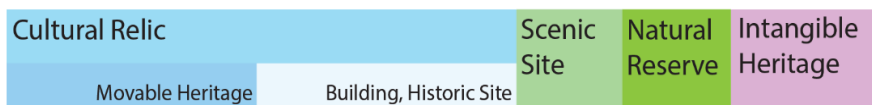
South Korea



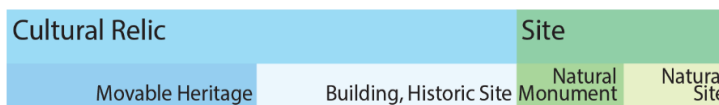
Japan



China



France



UK



UNESCO

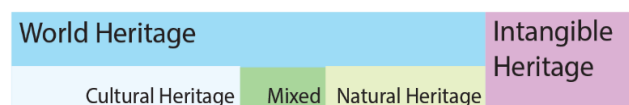


Figure 15 Comparison of Resources Designation in the Heritage Classification of South Korea and other countries <by author>

⁵¹ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 2-(1)-2 (Republic of Korea).

⁵² Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 2-(1)-4 (Republic of Korea).

The diagram above (Figure 15) summarizes the differences between heritage classifications among South Korea, Japan, China, the United State, France and UNESCO.⁵³ As seen in the graph, East Asian countries manage both tangible and intangible cultural heritage as well as natural heritage in their respective preservation systems. European countries, such as France and the United Kingdom, do not have any analogous public preservation mechanism for protecting intangible cultural heritage.

The UNESCO, in cooperation with the State Parties, established the ‘*Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972)’ and the ‘*Convention or the Safeguarding of the Intangible Cultural Heritage* (2003).’ Both Conventions have contributed to identification and designation of significant cultural and natural heritage and intangible heritage having Outstanding Universal Value (OUV) and inscribed the selected heritage on either the List of the World Heritage Sites or the List of the Intangible Cultural Heritage of Humanity.

b) Comparison between “Designation” and “Registration”

As noted above, among the cultural and natural heritage resources in South Korea, only “designated” or “registered” heritage has an eligibility to be protected and preserved, through regulatory policy.

When a cultural artifact, building, site or resource is recognized as having cultural significance and needing preservation, it may be designated as either State-designated cultural heritage or Local-designated cultural heritage.^{54,55} Even though the legislation

⁵³ Cultural Heritage Administration, *A Study for Upgrading South Korean Cultural Heritage Classification* (Daejeon: Cultural Heritage Administration, 2017), 13-38.

⁵⁴ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 2-(2) (Republic of Korea).

⁵⁵ State-designated cultural heritage is designated by the Administrator of the Cultural Heritage Administration (CHA) of South Korea, whereas Local-designated cultural heritage is designated by the heads (mayor or governor) of local governments.

does not anywhere specifically distinguish between State-designation and local-designation, it is generally understood that State-designated cultural heritage has a relatively higher cultural value than the local-designated cultural heritage.⁵⁶ State- and/or local-designated cultural heritage had been mostly composed of historic materials, places, buildings or intangible resources that were either manufactured or established before the late 19th century, before experiencing modernization.

In 2001, the South Korean government revised the section of the CHPA containing the clauses of ‘registered cultural heritage,’ so as to aim for the preservation of significant cultural resources of the colonial period and the modernization era. During the early modern and modern times, both classical Western-style buildings and Modernism architectural structures were established in Korean cities from the late 19th century, which had not gained recognition as cultural heritage under the 1961 legislation and thus faced the urgent situation of demolition because of development plans.⁵⁷ The CHPA established a clause for the preservation of such historic buildings as “registered cultural heritage,” and expanded the scope of the application for the registration to the movable heritage published or manufactured after the late 19th century (see Figure 14). Also, industrial heritages such as railroad station, bridge, factory, railway, and electronic materials became parts of the heritage by registration.

⁵⁶ For example, the Office of Cultural Properties, former governmental agency of the CHA, decided in 1996 to cancel the designation of the eight fortresses that were built in the late 16th century by the Japanese army during the Japanese invasion of the Korean Peninsula, concerning such fortresses do not contain enough significance to maintain the status as State-designated cultural heritage. The eight fortresses, after the cancellation, were locally designated by local government.

Yonhap News, “Degradation of the eight Japanese-made historic fortresses to local cultural-designation,” November 27, 1996,

<https://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=103&oid=001&aid=0004120031>

⁵⁷ Cultural Heritage Administration, *Introduction of the Registered Cultural Heritage – For the Preservation of Modern-era Cultural Resources*, (Daejeon: Cultural Heritage Administration, 2005), 4.



Figure 16 Former Supreme Court Building, Seoul (registered in 2006)
 <source: Cultural Heirtage Administration, South Korea, 2019>



Figure 17 Former Building of 'Space Group,' Seoul (registered in 2014)
 <source: Cultural Heirtage Administration, South Korea, 2019>

Comparing (State- and local-) “designated” cultural heritage, “registered” cultural heritage reveals several different characters. First, nearly all cultural heritages that are registered were manufactured or constructed from the late 19th century to no less than 50 years ago, whereas designated cultural heritage was created before late 19th century. Whereas registered cultural heritage includes industrial structures and inventions, designated cultural heritage is composed of artifacts, buildings, documents, paintings and structures that had been created during prehistoric, ancient, Medieval eras. Second, alternation of both façade and interior is much more widely allowed to registered cultural heritage than designated cultural heritage. As most buildings that is registered are used as living space, office and other facilities, alternation for adaptive reuse are allowed unless it would damage the heritage value or significance of the building. In contrast, regulations on alternation of designated cultural heritage are strictly applied. Third, only the CHA has authority to register cultural heritage, whereas both the CHA and local governments can designate cultural heritage.⁵⁸

2) Burial Cultural Heritage and Its Management

Most of the archeological resources in South Korea, if they have not been excavated and thus designated as historic sites, of course remain buried underneath. A long history of human presence has created multiple layers of remains underneath the ground - a distinctive characteristic that South Korea has with its buried heritage,⁵⁹ which

⁵⁸ Cultural Heritage Administration, *Introduction of the Registered Cultural Heritage*, 6.

⁵⁹ Act of Protection and Inspection of Buried Cultural Heritage (Law no. 16055, 2019, Republic of Korea) Article 2 defines burial heritage as:

- a. *tangible cultural heritage buried or distributed underground or underwater*
- b. *tangible cultural heritage contained in the structures, etc. and,*
- c. *Natural caves and fossils formed and deposited on the ground surface, underground or underwater (including seas, lakes and rivers), etc. and other objects deemed to have outstanding geological values under Presidential Decree.*

has led the government to set up detailed rules and principles on the burial heritage and excavation. In 2011, the South Korean government established a separate Bill on the management of burial heritage and the excavation works, named “Act of Protection and Inspection of Buried Cultural Heritage” (매장문화재 보호 및 조사에 관한 법률, hereinafter the Burial Heritage Act).

a) Principle of the Burial Heritage Management

In principle, any excavation work in an area in which buried cultural heritage is recognized to exist (hereinafter “area of buried cultural heritage” or “ABCH) is prohibited.⁶⁰ However, excavation work within the ABCH for a specific purpose is allowed under certain conditions, such as research, maintenance of architectural remains, salvage excavations, and the excavation related with construction works.⁶¹ In this case, the entity who intends to implement the excavation must receive the permit from the Cultural Heritage Administration (hereinafter the CHA).

The CHA, as a central governmental agency, can itself excavate some types of the ABCH, such as the designated areas of historic cities, areas in which underwater cultural heritage is scattered, and areas of high historical value (e.g. ruined Buddhist temple sites),⁶² if the excavation is determined to satisfy public interests and academic purposes.

b) Area of Buried Cultural Heritage

The Buried Heritage Act and the related Presidential Decree lists the criteria for

⁶⁰ Act of Protection and Inspection of Buried Cultural Heritage (Law no. 16055, 2019), Art. 4 (Republic of Korea).

⁶¹ Act of Protection and Inspection of Buried Cultural Heritage (Law no. 16055, 2019) Art 11-(1) (Republic of Korea).

⁶² Act of Protection and Inspection of Buried Cultural Heritage (Law no. 16055, 2019), Art. 13-(1) (Republic of Korea).

designation of the Area of Buried Cultural Heritage (the ABCH)⁶³, including an area indicated in the cultural relic distribution maps and an excavated area where the preservation actions were completed.⁶⁴ All the sites that correspond to the ABCH are announced and marked on the GIS map,⁶⁵ letting the public know the specific locations.

^{66, 67}

c) Construction Activities within the ABCH

In principal, the Burial Heritage Act does not directly engage with construction activities. However, in certain construction cases that are performed within the ABCH, the Burial Heritage Act is involved in construction permit processes.

For example, if the construction activities that accompany any ground work such as changes in the site's form and quality, or excavation works (for tunnels, canals and so on) and bed excavation which are regarded as likely to result in any harmful effects on

⁶³ Act of Protection and Inspection of Buried Cultural Heritage (Law no. 16055, 2019) Article 2 lists the criteria of the ABCH as:

- a. an area indicated in the cultural relic distribution maps,
- b. an area indicated to exist buried cultural heritage by the ground surface inspections,
- c. an excavated area where the preservation actions were completed,
- d. (State- or local-) designated historic sites,
- e. an area within the Protection zone where the Administrator of the CHA declared that the buried cultural heritage is deemed to exist,
- f. designated areas of historic cities
- g. an area in which underwater cultural heritage is scattered, and
- h. an area of high historical value such as a ruined Buddhist temple site

⁶⁴ The preservation activities are implemented among three options: on site (in-situ), removal and recording. Lee, Hwa Jong, "Archaeological Rescue Management in South Korea: Developing a Holistic Management Planning Model for Buried Archaeological Sites," (PhD thesis: University College of London, 2016), 140.

⁶⁵ The Cultural Heritage GIS service, provided by the CHA, offers the ABCH maps. "Cultural Heritage GIS Service," Cultural Heritage Administration, last modified 2019, <http://gis-heritage.go.kr/indexMain.do>.

⁶⁶ The CHA, in cooperation with the local government, created maps of cultural heritage resource distribution and established online service platform in 2012. By the end of the 20th century, "unintentional damages" of buried cultural heritage had been frequently happened by developers or builders, who did not have any information about the distribution of cultural heritage resources within the construction sites.

⁶⁷ Unlikely to the cases of Western countries, the number of illegal excavation and damages of burial cultural heritage in South Korea has been dramatically decreased from the 1970s, and less likely happens nowadays because of strict regulations by the buried heritage act and strong cracking down by the South Korean government.

the buried cultural heritage, the investigation work on the buried cultural heritage must be performed beforehand.

Similarly, within the Historic and Cultural Environment Preservation Area (HCEPA) or Protection Zone (PZ), the same rule mentioned above is applied. The HCEPA and the PZ control construction activities within the area, whereas the ABCH is interested in the preservation of buried cultural heritage.

Suppose the construction activity is planned within the overlay between the HCEPA and the ABCH or between the PZ and the ABCH. If the construction plan does not accompany any digging works, the rules and regulations concerning the ABCH are not applied and the Buried Heritage Act does not engage with the construction activity. However, if the construction requires ground works that are likely to be harmful to the buried cultural heritage, the authorized agency of building permit on the HCEPA and the PZ should suspend the permit reviewing until the investigating works and the associated procedures required in the Buried Heritage Act are finished.

3) Heritage Zoning: A Mixture of Multiple Zonings

The Cultural Heritage Protection Act, as described on pages 35 and 36 above, provides multiple types of heritage preservation zones, all of which support the preservation and protection of cultural, natural heritage and the historic and cultural resources within and around the heritage sites. As listed below, each zone is created and serves to fulfill its own aims in terms of heritage preservation. The zones thus possess a space alone or shares certain space, directly concerning the heritage resource types that each zone or area is serving.

Those zones and areas are categorized by two parts: 1. zones related to designated

heritage: Designated Areas (DA), Protection Zones (PZ) and Historic and Cultural Environment Preservation Area (HCEPA) (illustrated in Figure 19); and 2. Areas of Buried Cultural Heritage (ABCH).

Zones or Areas	Description
Designated Area (DA)	The area that the nationally/locally designated cultural and natural heritage occupies
Protection Zone (PZ)	The area designated to protect any designated cultural and natural heritage, excluding an area where the designated cultural and natural heritage occupies
Historic and Cultural Environment Preservation Area (HCEPA) ⁶⁸	The area within the scope of up to 500m from the outer boundary of either protection zone or designation area (if protection zone is not designated), which aims for the preservation of the cultural, artistic, academic, and scenic value of the relevant designated cultural and natural heritage, its surrounding environment, and other necessary matters for the protection of cultural and natural heritage (▪ For local designation heritage, the scope is up to 300m.)
Areas of Buried Cultural Heritage (ABCH)	The area in which buried cultural heritage is recognized to exist, and shall be protected so that the original form is not to be damaged, and no one shall inspect or excavate unless the inspection or excavation conforms to the Buried Cultural Heritage Act (ABCH)

Figure 18 Description of Each Zone of Cultural Heritage
 <by author, source: Cultural Heritage Protection Act and Act of Protection and Inspection of Burial Cultural Heritage, South Korea, 2019>

To be accurate, when overlay conflicts occur, they typically happen between zones and areas that serve different types of heritage resources, because each area or zone

⁶⁸ The term HCEPA is a buffer zone of cultural heritage in South Korea. Detailed explanation of the HCEPA is described in the next section (page 48-68).

intends to achieve different goals. As shown in Figure 19, the DA, the PZ and the HCEPA do not cause zoning overlays. The PZ, as a protect area of the designated cultural heritage, should not invade the border of the DA. The HCEPA, as its inner boundary should begin from the outer boundary of either PZ or the DA (if a designated cultural heritage does not contain the PZ). However, both the PZ and the HCEPA, as different types of buffer zones, perform their roles of protecting designated heritage by managing and regulating any harmful activities. Moreover, the CHPA allows all the zones of designated heritage to be created contiguously to other zones, which implies that each zone does not allow other zones to be overlapped. The PZ should “exclude an area where the designated cultural heritage occupies,”⁶⁹ and the HCEPA contains a scope of “within 500 meters from an outer boundary (of a State-designated protection zone).”⁷⁰

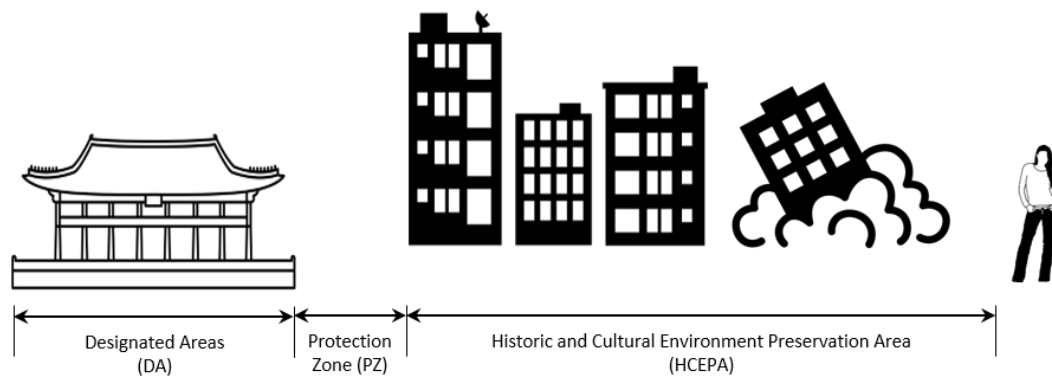


Figure 19 Graph of Designated Heritage Related Area
<by author, source Cultural Heritage Administration, South Korea, 2019>

On the contrary, the overlap can happen between the zones and areas serving different types of cultural heritage, and this especially happens within and around

⁶⁹ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 2-(2) (Republic of Korea).

⁷⁰ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(1) and (3) (Republic of Korea).

designated historic sites. For example, designated historic sites in South Korea such as archaeological sites, fortresses, remains of ancient city fabrics typically contain buried heritage resources either within or out of the Designation Area.

To illustrate, the GIS map of Gyeongju (Figure 20), widely known as the capital of Shilla, one of the ancient Korean countries, shows the overlap of the various heritage areas and zones. On the legend of the map, the yellow-colored area presents the Designated Area (DA), and the area with yellow dots and outer line represents the Areas of Buried Cultural Heritage (ABCH). The areas with colors that are not indicated in the legend represent the Historic and Cultural Environmental Preservation Area (HCEPA). As seen in the map, some of the ABCH (blue dots and lines) are set up “as part of” both the DA and the HCEPA.

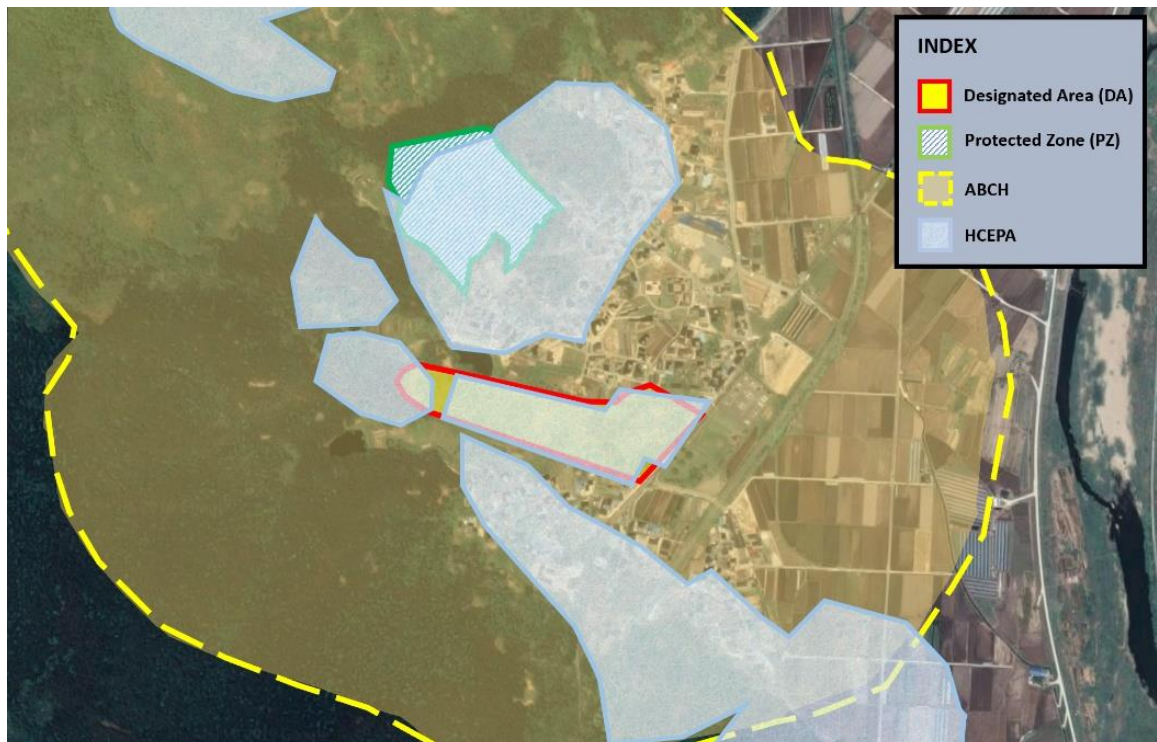


Figure 20 Example of Zones Overlay (Gyeongju Historic City District)

<reproduced by author, Cultural Heritage GIS Service, South Korea, 2019>

2. Introduction of the Historic and Cultural Environment Preservation Area (HCEPA) in South Korea and its development

1) Overview of the HCEPA: A “new” Type of Buffer Zone

a) Description of the HCEPA

The CHPA defines the term “Historic and Cultural Environment” as “the natural landscape or any place of outstanding historic and cultural value near cultural heritage that needs to be protected together with the relevant cultural heritage.”⁷¹ According to this definition, a space should satisfy three requirements in order to become a designated as a “Historic and Cultural Environment”: a) should contain a ‘natural landscape’ or have ‘cultural or historic significance,’ b) have ‘geographical proximity’ to a cultural heritage, and c) should contribute to the preservation or management of the cultural heritage it serves by being protected itself.

Its definition is not too different from that of a buffer zone in the Operation Guidelines of the World Heritage of the UNESCO mentioned above, which describes “(a buffer zone) as “an area surrounding the nominated property” and “important views and other areas or attributes that are functionally important as a support to the property and its protection.” So, it can be said that South Korea’s Historic and Cultural Environment has a similar function as a UNESCO buffer zone.

b) Heritage Types with the HCEPA Application

The CHPA explains the details of the Historic and Cultural Environment Preservation Area (HCEPA) in Article 13 (Protection of Historic and Cultural Environment Preservation Area), including its scope and details of controlled activities.

⁷¹ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 2-(2)-6 (Republic of Korea).

According to Article 13, the HCEPA is to be created around both ‘State-designated’ and ‘local-designated’ cultural heritage, except for movable heritage and intangible cultural heritage.

Figure 21 shows the application of the HCEPA by heritage type. Buildings of both tangible and folklore heritage, and all types of monument (cultural site, scenic site and natural monument) are required to establish their own HCEPA as buffer zone.

Type of Heritage		HCEPA
Tangible Heritage	Movable Heritage	No
	Building	Yes
Intangible Heritage		No
Monument	Cultural Site	Yes
	Scenic Site	Yes
	Natural Monument	Yes
Folklore Heritage	Movable Heritage	No
	Building	Yes

Figure 21 Application of the HCEPA by Heritage Types (see Figure 13, in page 35, and Figure 18, in page 45) <by author>

2) Background of the HCEPA Policy Introduction and its Development

a) Background of the HCEPA Policy Introduction

The first legislation controlling construction activities around cultural heritage in South Korea was implemented in the year of 1978, in the amendment of the Enforcement Decree of the Building Act, which established a clause requiring prior approval by the Minister of Construction⁷² of the building construction projects adjacent to the boundary

⁷² The power of the approval was transferred to local government in 1996. Enforcement Decree of the Building Act (No. 9193, 1996) Art. 8-(4)-3 (Republic of Korea).

of the cultural heritage on the list.⁷³ While the municipal governments have authority for building permission in general, as the result of this 1978 legislation special procedures to receive permission of the central government (the Ministry of Construction) became needed on the building constructions within the buffer zones of several cultural heritages.⁷⁴ The list of cultural heritage is decided by the consultation between the Ministry of Construction and the Ministry of Culture and Public Information⁷⁵, and the resulting selected cultural heritage resources were mostly located in metropolitan cities, such as Seoul, having frequent building construction activity. Initially, the scope of the boundary was 300 meters, but it was officially narrowed by 100 meters two years after.⁷⁶

Unfortunately, the clause regulating new construction within 100 meters of the cultural property was abolished in 1999, which led to allowing new building construction on the areas next to the designated cultural heritages in urban areas, provoking the protests of the preservationists and general public.^{77,78}

A national project of high-speed railway construction in the last decade of the 20th century further provoked the conflict about the inactivity of legislations concerning construction activities that would bring about huge adverse effects on cultural resources preservation. The Gyeongbu High-Speed Railway construction project, one of the

⁷³ Enforcement Decree of the Building Act (No. 9193, 1978), Art. 6-3-(5) (Republic of Korea).

⁷⁴ The Minister of Construction decided the approval before hearing the advisory opinion of the National Committee of Cultural Heritage, the advisory committee of the cultural heritage affairs of the Ministry of Culture and Public Information (now the Cultural Heritage Administration).

⁷⁵ A former governmental body of the Cultural Heritage Administration

⁷⁶ Enforcement Decree of the Building Act (No. 10062, 1980), Art. 6-3-(3) (Republic of Korea).

⁷⁷ Yeon-Wook, Jung, "A 'Lawful' Constructions that choke cultural heritage... Debate over the Former President Yoon's House preservation," *Dong-A Ilbo*, June 19, 2000,

<https://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=102&oid=020&aid=0000011530>

⁷⁸ Hee-Yong Lee, "Restrictions on the building construction around Buddhist temple is brought back," *Yonhap News*, July 16, 1999,

<https://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=103&oid=001&aid=0004416867>

presidential commitments, was undertaken in 1992 with an initial plan to pass through the historic city Gyeongju, but the construction soon became deadlocked because of severe antagonism between the supporting groups of the railroad construction and the opposed parties, including preservationists and cultural heritage experts, concerning anticipated damage to historic resources and the surrounding landscape in the city of Gyeongju. An acute conflict also happened between the related governmental agencies – the Ministry of Construction and the Ministry of Culture and Public Information. While the Ministry of Construction was pushing the construction, warning about the increase in financial burden because of the suspension of the construction, the Ministry of Culture and Public Information showed strong opposition.

Finally, the construction plan was changed so that the railway would bypass the downtown of Gyeongju city, and the cultural resources accumulated in its city center, and finished the construction in 2002. Such national-wide conflict spurred cultural heritage advocates to apply pressures to South Korean lawmakers to introduce more powerful regulatory methods for preserving historic resources around cultural heritages, including the re-establishment of larger buffer zones. As a result, the abolished regulation around the cultural heritage was reinstated in the year of 2000, by the amendment of the CHPA.⁷⁹

b) Changes and Development the HCEPA Policy

When the regulation was reintroduced in 2000, the details of the regulation including maximum boundary (500 meters) and the regulated activities were defined. The

⁷⁹ Dong-Kyun Kang, “Regulation of the construction Activities within the Area of 500 meters from the Cultural Heritage,” *Hanguk GyeongJe*, July 14, 2000, <https://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=102&oid=015&aid=0000255865>

CHPA amendment (effective on July 1, 2000) and its associated enforcement decree imposed the duty of administrative agencies in charge of the construction works to “study whether the implementation of such construction work will affect the preservation of such cultural property prior to granting authorization or permission,”⁸⁰ in case the construction work is “intended to be implemented in an area outside the outer boundary of a cultural property (cultural heritage) and the designated area.”⁸¹ The scope of the designated area for each cultural heritage was defined by the consultation between the local governments and the CHA, under no condition to exceed 500 meters, as summarized in Figure 22.⁸²

	State-designated Cultural Heritage		Local-designated Cultural Heritage	
	Residential Commercial Industrial Areas	Other Areas	Residential Commercial Industrial Areas	Other Areas
Seoul	100m	100m	50m	50m
Busan, Daegu, Incheon, Gwangju, Ulsan	200m	500m	200m	300m
Daejeon, Chungnam, Chungbuk Gyeonggi, Gangwon, Sejong, Jeonnam, Gyeongbuk, Gyeongnam	200m	500m	200m	300m
Jeonbuk	500m	500m	500m	500m
Jeju	500m	500m	300m	300m

Figure 22 Scope of the HCEPA by local governments

<source: Cultural Heritage Administration, South Korea, 2019>

By 2002, the CHA and all local governments concluded the required consultation and drew the boundary of each HCEPA from the range of 50 meters to 500 meters in

⁸⁰ A “study” in this clause contains a character of “evaluation” or “assessment,” by measuring whether a construction activity would bring an adverse effect on the preservation of the cultural heritage nearby.

⁸¹ Cultural Heritage Protection Act (Law no. 6133, 2000), Art. 74-(2) (Republic of Korea).

⁸² Enforcement Decree of the Cultural Heritage Protection Act (No. 16902, 2000), Art. 43.2-(1) (Republic of Korea)

response to the overall development level of each local governments, land-use types, and the designation type (State-designated and local-designated). Figure 22 above depicts the resulting details of the HCEPA scopes established for each local government.

If the study⁸³ concluded that a proposed construction activity would result in an (adverse) affect to cultural heritage⁸⁴, the construction activity would be required to get a review by either the CHA (State-designated) or the local governments (local-designated). The CHA and/or the local governments decide whether to permit a variance, subject to hearing the opinion of the National or local cultural heritage committees.

In 2008, the CHA and the local governments, in cooperation with the municipal governments and the experts, undertook to establish detailed Standards of Permittable Activities within the surrounding HCEPAs of each designated cultural heritage.⁸⁵ The Standard of Permittable Activities suggest the maximum building height allowed and other allowable limit of construction activities, and any activities satisfying the Standards of Permittable Activities are considered as completing the study by the administrative agencies in charge. This administrative adjustment was expected to reduce study and permitting costs and schedules, which would be beneficial for both the developer/landowners and the administrative bodies. A zoning map with indications of the detailed standards on each lot was created and applied to the HCEPA of each State or local designated cultural heritage. By the end of 2018, the CHA finished establishing the Standard of Permittable Activities for the 1,833 State-designated cultural heritages.⁸⁶

⁸³ The study requires the participation of more than three experts in related field.

⁸⁴ The construction activity in study turns to bring an (adverse) effect on the preservation of the cultural heritage only if the majority of the participants vote as “affective.”

⁸⁵ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(4) (Republic of Korea).

⁸⁶ Cultural Heritage Administration, *Statistics of Cultural Heritage 2018* (Daejeon: Cultural Heritage Administration), 57.

The photos and maps in Figure 24, 25, 26 and 27 show examples of the application of these new Standard of Permittable Activities within the HCEPA. Each HCEPA is divided into multiple sub-zones and the sub-zones contain allowable construction limits/degrees that are regarded to have no harmful effect on the cultural heritage preservation and thus are allowed to be constructed without a reviewing process.

3) Procedures of Construction Work Review within the HCEPA

a) Boundary of the HCEPA

As mentioned above, the scope of the HCEPA for each designated cultural heritage is established within the minimum of 50 meters to the maximum of 500 meters, considering the status of the designation (State- or local-designation), land-use types (residential, commercial, industrial area or other areas) and the development level of each local governments (Seoul or other regions), as illustrated in selected examples - Figures 24-27. The scope of the HCEPA is delimited from the outer borderline of either the Protected Zone (PZ) or Designated Area (DA, if a designation does not contain its protected zone).⁸⁷

b) Prerequisite: Existence of Construction Work Plan

The CHPA prescribes that “an administrative agency in charge of authorization, permission, etc. of the construction works (within a historic and cultural environment preservation area) shall examine whether such construction works are likely to affect the preservation of designated cultural heritage.”⁸⁸

The Enforcement Decree of the Cultural Heritage Protection Act, a presidential

⁸⁷ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(3) (Republic of Korea).

⁸⁸ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(2) (Republic of Korea).

decree of the CHPA, lists details of construction works.⁸⁹ According to the clause in the Decree, construction works are defined not only the establishment or alternation of a structure such as houses, parks, monuments, stadiums and bridges, but also include the accompanying activities of the establishment/alternation such as mounding or cutting the ground, landscaping and digging that would cause physical changes within the HCEPA. Construction that is not relevant to changing any physical features of a HCEPA but would bring any harmful effects, such as contamination, corrosion, watering and cracking, is also regulated. Details of construction works are listed as below:

- ✓ Establishing or extending a building or a facility which is likely to spoil the landscape of the State-designated cultural heritage concerned;
- ✓ Planting or removing trees which are likely to spoil the landscape of the relevant State-designated cultural property;
- ✓ Any act that may affect preservation of the State- (or local-) designated cultural heritage concerned by generating noise, malodor, vibration, etc. or emitting air pollutants, chemical substances, dust, light, heat, etc.;
- ✓ Excavating 50 meters below ground that may affect preservation of the State-designated cultural heritage concerned;
- ✓ Altering the shape and quality of land or forest that may affect preservation of the State-designated cultural heritage concerned;

Figure 23 List of Construction Works

<source: Enforcement Decree of the Cultural Heritage Protection Act, revised on Jan 1, 2019>

The review process for the HCEPA, as it mainly targets activities that will bring either any physical changes within the HCEPA or cause harmful effects on the cultural heritage surrounded by the HCEPA, does not in and of itself establish or amend other regulatory components such as the zoning code, zoning overlay (historic districts, conservation districts, and so on), city planning such as masterplans, and transportation

⁸⁹ Enforcement Decree of the Cultural Heritage Protection Act (No. 29421, 2019), Art. 21.2-(2)-1 (Republic of Korea).

plans that do not create any imminent construction works but would bring about physical changes in the near future. The National Land Planning and Utilization Act – a fundamental law of city planning and land use in South Korea – and the accompanying legislation provides compulsory clauses that metropolitan plans, local master plans and district-unit plans should be established so as to ensure the preservation of the cultural heritage and historic and cultural environment.⁹⁰

c) Step One: Examination of the Adverse Effect on the Preservation of Cultural Heritage

As mentioned earlier, the administrative agencies in charge of any proposed construction work have the regulatory obligation to implement the preservation effectiveness study (examination) on the designated cultural heritage.⁹¹ The agencies can appoint more than three experts in related areas^{92,93} implement the examination before the construction work is performed, and they determine the construction plan's affect on HCEPA: either “no effect,” or “effect.” If the construction activity turned to bring “no

⁹⁰ Enforcement Decree of the National Land Planning and Utilization Act (No. 26381, 2015), Art. 10(4), 16(7), 19(7), 42-3(1-3) (Republic of Korea)

⁹¹ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(2) (Republic of Korea).

⁹² Enforcement Decree of the Cultural Heritage Protection Act (No. 29421, 2019), Art. 7-(2)-4 (Republic of Korea).

⁹³ The term ‘experts’ in this clause include persons satisfying one of the conditions below:

1. *A member or an expert member of the Cultural Heritage Committee;*
2. *A member or an expert member of the City/Do (=local government) cultural heritage committee under Article 71 of the Act;*
3. *A faculty member who is an assistant professor or higher of a cultural heritage-related department of an educational institution under Article 2 of the Higher Education Act;*
4. *A senior research official, a research official, or a professional experienced official ... who is in charge of the affairs of cultural heritage.*
5. *A faculty member who is an assistant professor or higher of a department related to construction, civil engineering, environment, urban planning, noise, vibration, air pollution, chemical substance, dust, or heat at an educational institution*
6. *A person recommended from an academic society related to any of the areas*
7. *A researcher or higher who belongs to a research institution related to any of the areas*

Enforcement Decree of the Cultural Heritage Protection Act (No. 29421, 2019), Art. 7-(2)-2 and 3 (Republic of Korea).

effect,” the review process is terminated and the administrative agency in charge should issue a variance.⁹⁴ However, if the majority of the examiners decide that it would be “effective,” the construction case is delivered to either the CHA (for State-designated cultural heritage) or the local government (for local-designated cultural heritage) staffs for the second-round review⁹⁵ which examines whether the it would bring an “adverse effect” or not. Only if the review concludes “no adverse effect” the CHA or the local government issue the variance.

Comparing to the Section 106 review process discussed on Section II-1-(2), both programs allow participation of the experts (SHPO/THPO in the Section 106 review, and appointed experts in the South Korean preservation effectiveness study) for evaluating the effectiveness of construct works on the preservation of cultural resources. However, specific roles of South Korean experts and the U.S. SHPO/THPO are quite different. Whereas South Koreans are allowed only to simply opine whether the construction work in examination would bring an ‘effect’ or not, SHPO/THPO are given much more active role not only investigate an adverse effect on historic resources by proposed work plan but also to advise or suggest revisions of the plan for mitigating the adverse effect.

d) Exception of the Examination: Satisfaction of the Standards

However, the studies are not applied to a certain construction activity within a HCEPA where the Standards of Permittable Activities (hereinafter the Standards) have already been established, as described in section II-2-(2). Each HCEPA of the maps contains one or many equidistant curves with intervals of 100 meters, which spread out

⁹⁴ Enforcement Decree of the Cultural Heritage Protection Act (No. 29421, 2019), Art. 7-(2)-5 (Republic of Korea).

⁹⁵ Enforcement Decree of the Cultural Heritage Protection Act (No. 29421, 2019), Art. 7-(2)-6 (Republic of Korea).

from the boundary of PZ or DA (if the cultural heritage does not have its own PZ).

Each HCEPA map also displays sub zones, within each of which is indicated its own allowable construction limits such as permissible building height, ground cutting/mounding etc. The Standards that each sub-zone have are considered to be the limit of ‘the acts that could affect the preservation of the designated cultural heritage in historic and cultural environment preservation area (HCEPA).’⁹⁶ That means, any construction works satisfying the Standard that each sub-zone requires are regarded to not have adverse effects to the preservation. In other words, the Standards provides a ‘cut-off’ score for the land-owners or developers receiving the building construction approval.

For an HCEPA in which the Standards were set up, the administrative agencies are exempted to perform the examination on the adverse effect that the HCPA requires.⁹⁷ As the Standards are the minimum degree that would not bring the adverse effects, they are regarded to be a result of the examinations by the experts. Therefore, the same rule applies in both cases. If a construction activity application in a HCEPA where the Standard was already established, exceeds a limit that the map of Standards indicates, it is delivered either to the CHA or to the local government in charge for the review.

The maps below (Figures 24-27) are the examples of the Standards of Permittable Activities of State-designated cultural heritages in Seoul (Sungnyemoon Gate, National Treasure) and other regions (Soseok Historic House, Historic Site), as well as that of a local-designated cultural heritage (Jongdal Yeondae Beacon Tower, Monument of Jeju).

⁹⁶ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(4) (Republic of Korea).

⁹⁷ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 13-(6) (Republic of Korea).



Figure 24 Birds-Eye View of Sungnyemun and the Surrounding Area

<source: Google Maps, accessed Mar 29, 2019>

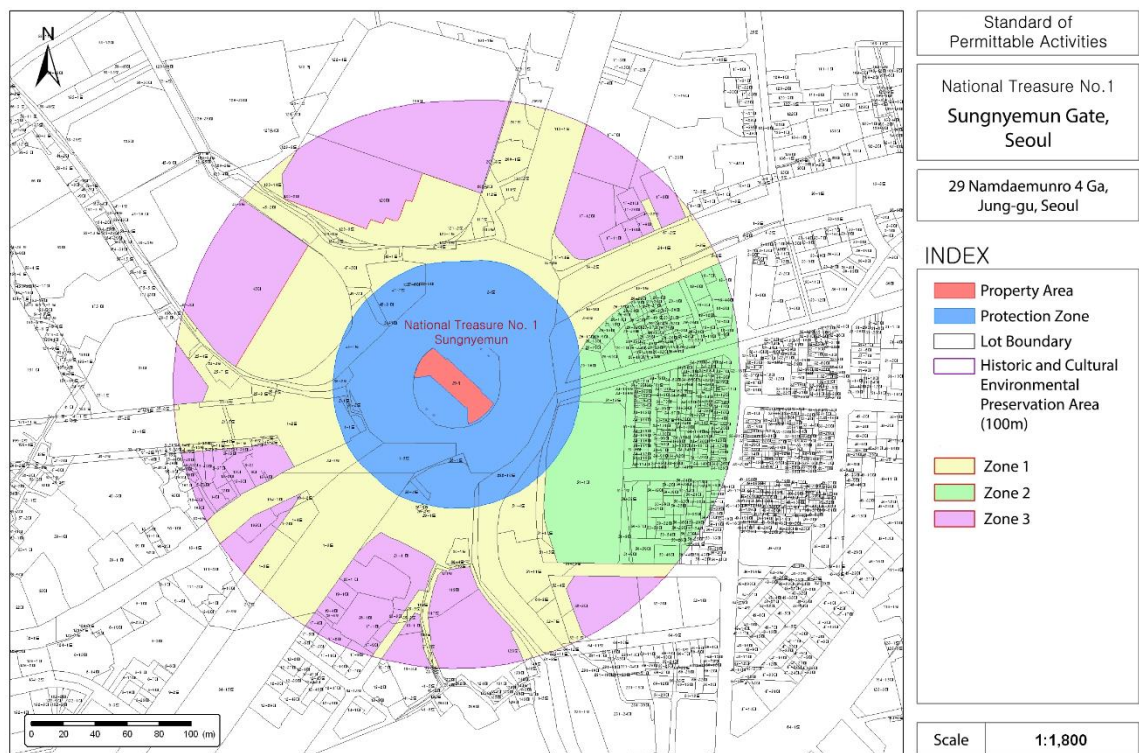


Figure 25 Map of Standard of Permittable Activities (Sungnyemun, National Treasure: State-designated)

<source: Cultural Heritage Administration, South Korea, enforced on Nov.2, 2010>

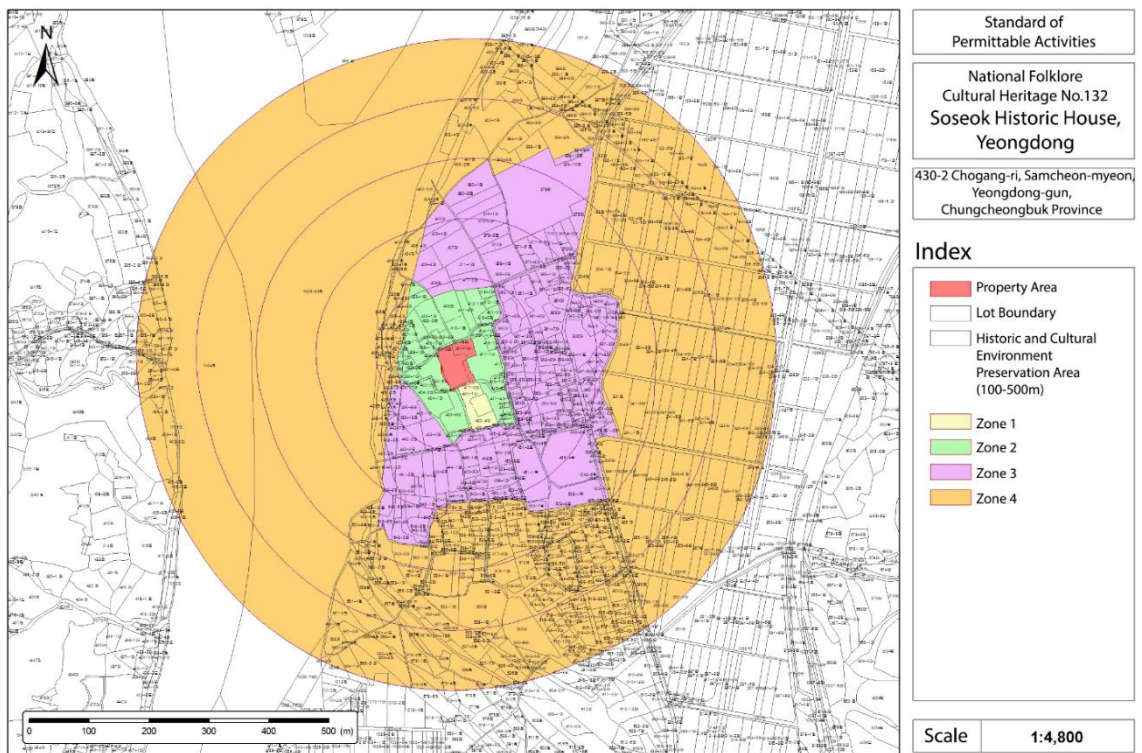


Figure 26 Standard of Permittable Activities Map (Soseok Historic House, Historic Site: State-designated)
<source: Cultural Heritage Administration, enforced on oct 16, 2018>

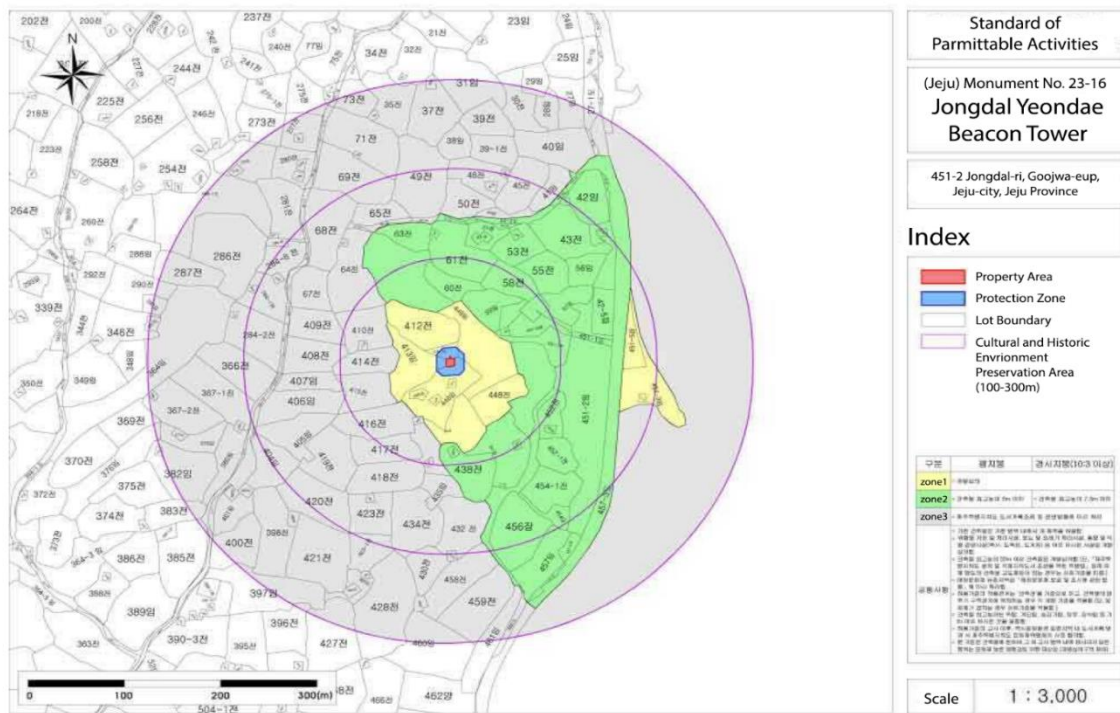


Figure 27 Standard of Permittable Activities Map (Jongdal Yeondae Beacon Tower - Monument: local-designated) <source: Jeju Special Self-Governing Province, enforced on Nov 2, 2016>

All maps show the Designated Area (DA), Protection Zone (PZ) in the center and the HCEPA, with its concentric circular shape enfolding the PA and PZ, being drawn at every 100 meters. Every HCEPA is divided by multiple zones, and each zone indicates simple allowable standard on construction works such as height limit and ground-cut limit.

The HCEPA of Sungnyemun Gate (Figure 25), a State-designated National Treasure in Seoul Metropolitan City, encloses an area of 100 meters from the outer boundary of the blue-colored PZ. As seen in the aerial map on Figure 24, this National Treasure no.1 is surrounded with the circulation road and the massive buildings. As most of Seoul, a city with a population of approximately 10 million, has been highly developed, the Seoul Metropolitan Government and the CHA agreed to set the HCEPA up to 100 meters from the edge of the PZ boundary for the State-designated cultural heritage and up to 50 meters for the local-designated cultural heritage. The HCEPA of Sungnyemun is composed of three sub zones. Zone 1, adjacent to the PZ, is the area within which every kind of construction activity is regarded to have a potential (adverse) effect and thus requires a review by the CHA. Zone 2 allows a building height limit up to 11 meters – any building construction activities up to 11 meters or other construction actions such as ground mounding/cutting should perform the CHA review process for variance. Zone 3 does not contain any such limits on the construction.

Figure 26 shows a Standard of Permittable Activities map of a National Folk Heritage (State-designated) site – Soseok Historic House – located out of Seoul Metropolitan City. Contrary to the Sungnyemun gate case above, the DA (colored-in-red) is wrapped with five concentric purple circle line spread at intervals of 100 hundred

meters, indicating that the total scope of the HCEPA of Soseok Historic House is 500 meters. The HCEPA of Soseok Historic House is beginning from the borderline of the DA (colored-in-red), as it does not contain its own PZ around the DA. The HCEPA of Soseok Historic House is divided in four different zones, each of which has different standards on the maximum of permissible activities. Similar to the Sungyemun case, Zone 1 is an area within which no activities are permissible without a review by the CHA. Building height limits are applied to both Zone 2 and Zone 3, which allows building activities under the limits in those area (Zone 2: by 5 meters, Zone 3: by 8 meters). Zone 4 does not contain building height limit, because any construction activities are regarded not to cause any adverse effects on the visibility of the cultural heritage which the HCEPA is serving. Many of the HCEPAs of other designated cultural heritage contains the subzone of no building height limits, like the Zone 4 of Soseok Historic House.

Figure 27 is a Standard of Permissible Activities map of Jongdal Youndae Beacon Tower, a local-designated cultural heritage (monument) in Jeju Special Self-governing Province. The map consists of three layers – DA (colored-in-red), PZ (colored-in-blue) and the HCEPA (rounded purple solid lines). The DA and PZ are surrounded by the HCEPA of up to 300 meters. Three zones with different standards constitute the HCEPA. Zone 1, colored with red, requires all activities to be reviewed, Zone 2, colored with green, allows 5 meters of building height, and Zone 3 does not have any construction limit or requirement.

e) Step Two: Review by the CHA or Local Governments

As mentioned before, a construction work case that is determined to have an “effect on the resources” as a result of the first-round examination by the administrative entity in charge, or one that does not satisfy the “Standard of Permittable Activities” of the HCEPA where the work will be undertaken, should be reviewed by either the CHA (for the case of State-designated cultural heritage) or the local government having jurisdiction (for the case of local-designated cultural heritage). Either the CHA or the local governments are the administrative organizations that contain highest-level privileges on construction works permission within the HCEPA. Article 35 in the HCPA announces that “a person who intends to perform any of the following acts in connection with State-designated cultural heritage ... shall obtain permission from the Administrator of the Cultural Heritage Administration, [including the] acts ... which could affect the preservation of --- designated cultural heritage.”⁹⁸ This provision shall apply *mutatis mutandis* to local governments regarding the management of local-designated cultural heritage and its HCEPA.⁹⁹ According to Articles 35 and 74, either the landowner or the developer whose construction work plan was concluded to be “effective” by the administrative agency should submit a permit application to the CHA or local governments.

The staffs of either the CHA or the local governments in charge, when they receive such a permit (or variance) application, examine the construction work case they

⁹⁸ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 35-(1) (Republic of Korea).

⁹⁹ Articles ... 35 (1) ... shall apply *mutatis mutandis* to the designation of City/Do-designated cultural heritage and cultural heritage resources, the revocation of such designation, and management thereof. In such cases, “Administrator of the Cultural Heritage Administration” shall be construed as “Mayor/Do Governor,” ... and “State” as “local government.” Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 74-(2) (Republic of Korea).

received from the administrative agency, establishing whether it would cause an “adverse effect” or not. When the review is concluded as “no adverse effect,” the administrator of the CHA or the governor of the local government in charge issues the variance to the applicant. However, when the application case is determined to bring an “adverse effect,” they disapprove it. Also, a conditional permission can be issued to the cases if there is a possibility to mitigate an adverse effect on the preservation of the cultural heritage and the HCEPA by imposing certain conditions.

The staffs in charge of the application may perform field study on the application case if needed and can let professionals in related area (such as archaeology, landscape, city planning, historic preservation, etc.) get involved to the survey and listen their opinions.

Even though it is not compulsory, the applications are also generally reviewed by either the National Cultural Heritage Committee (hereinafter the NCHC) or local cultural heritage committees, by request of the CHA or local governments. The NCHC, composed of renowned experts in related fields¹⁰⁰ who are all appointed by the Administrator of the CHA¹⁰¹, is an advisory organization established under the CHA, for the purpose of investigation and deliberation on “the matters concerning the preservation, management, and utilization of cultural heritage,”¹⁰² and is allowed to investigate and deliberate on the

¹⁰⁰ Members of the NCHC, to be appointed, should meet at least of one of the criteria as below:

- a) A person who is or was an associate professor or higher, in the faculty related to the preservation, management, and utilization of cultural heritage in a university;
- b) A person who has been engaged in business related to the preservation, management, and utilization of cultural for at least ten years;
- c) An expert having abundant knowledge and experience in cultural heritage who has been engaged in business of anthropology, sociology, architecture, urban planning, tourism, environment, law, religion, or the press at least ten years.

¹⁰¹ Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 8-(2) (Republic of Korea).

¹⁰² Cultural Heritage Protection Act (Law no. 15827, 2019), Art. 8-(1) (Republic of Korea).

preservation issues including “designation of cultural heritage and alternation of its current state,” and “the protection of historic and cultural environment for State-designated cultural heritage (management of HCEPA).” All local governments also establish their own local cultural heritage committee based on the ordinances, and the local cultural heritage commissions deal with the issues on the local-designated cultural heritage and the HCEPA as well.

The mechanism of engagement of the committees are basically similar to those of State or municipal historical commissions in the U.S. The NCHC and local cultural heritage commissions discuss whether a construction project seeking a permit would result in an adverse effect and determine either “Yea” or “Nay.” The Committee can also vote for “Yea” with conditions, when the construction work would bring an adverse effect but can be lessened or mitigated it by fulfilling a certain requirement or condition the commission asks for. The CHA or local government, based on the decision of the committees, either issues a permit on the application or disapproves it.

4) Cultural Heritage Re-Classification as a management tool of the HCEPA

In 2015, the CHA announced a quasi-official chart of cultural and natural heritage classification, as a purpose of setting up “the Judging Criteria”¹⁰³ applied to both construction work review¹⁰⁴ within the HCEPA and establishing or revising “the Standards” (Figure 28). Based on an academic research performed by a task-force team composed of experts and the CHA staffs (including the author)¹⁰⁵ in charge of the

¹⁰³ Guide for Establishing the Standards of Permittable Activities on Historic and Cultural Environment Preservation Area (Cultural Heritage Administration Official Order no. 449, December 18, 2017), Attached Table 2 (Republic of Korea).

¹⁰⁴ Operational Guideline of National Cultural Heritage Committee (Cultural Heritage Administration Published Ruling, Enforcement Date: Jan. 1, 2019), 2(2).

¹⁰⁵ Hong-Seok Cho et al., “A Study on Improvement Examination Standard for the Limit of Changing Current State of the Cultural Properties,” *Journal of the Korean Institute of Traditional Landscape*

HCEPA policy, the Judging Criteria provide detailed guidelines, considering values and characteristics that each cultural heritage type contains.

Prehistoric Site	Placeness	Consider approximate level and possibility of development, together with geological characteristics of the surrounding area.
	Oneness	Consider location characteristic and related to hunting and gathering area.

Figure 28 Example of Review Criteria (prehistoric site)

<source: Hong-Seok Cho et al. "A Study on Improvement Examination Standard" (2015): 162>

The Judging Criteria present five indicators – placeness, dwarfing, prospect, ridge line, and oneness – as major elements that comprise the character of the buffer zone (the HCEPA) in general,¹⁰⁶ and the five indicators can be applied all or in part to each cultural heritage type in consideration of its own value. For a prehistoric site, for example, only two indicators – placeness and oneness – are applied as considering elements.

The Judging Criteria reclassifies cultural and natural heritage as 26 types in total (column (d). In the classification of Figure 29, heritage is divided into two sub groups – cultural heritage and natural heritage (column (a)), and rearranges ‘tangible heritage – building,’ ‘monument – cultural site,’ and ‘folklore site’ as one group (column (b)). Figure 29 further subdivides into categories of tangible asset and subdivided tangible asset as ‘tangible cultural asset’ and ‘sunken relics cultural asset (column (c)). The

Architecture 33 no. 4 (2015): 163-164.

¹⁰⁶ Definitions of each index is as below:

<Placeness> Characteristics for preserving the value of a heritage as its original form.

<Dwarfing> Heritages looking dwarfed due to large surrounding buildings.

<Prospect> Visual impression of specific heritage or place characteristics for ensuring awareness or reputation.

<Ridge Line> Harmonization of the crest of a heritage and ridges of a mountain behind, etc.

<Oneness> Preserving characteristic and context of excavatable area of buried cultural properties for forming identity of living/natural environmental aspects.

Main Category (a)	Mid Category (b)	Sub Category (c)	Sub Section (d)	Main Typification (e)
Cultural Heritage	National Treasure, Treasure, Historic Site, Important Folklore Cultural Heritage	Tangible Cultural Asset	Palace	Palace, Palace Gate, Palace Site
			Government Office · Guesthouse	Government Office, Guesthouse, Guesthouse Site, National History Archives
			Confucian Academy · Confucian School	Confucian Academy, Confucian School
			Temple (Buddhist Temple)	Temple (Buddhist Temple)
			Fortress (flatland · mountain)	Flatland fortress, Mountain fortress
			Royal tomb · Garden · Burial site	Royal tomb · Garden · Burial site
			Temple (Shrine)	Temple, Ancestral memorial ceremony Site
			Traditional houses	House, Pavilion
			Folk villages	Villages
			Pagoda · Monument · Buddhas	Pagoda, Epitaph, Buddha, Stone Lantern, Stone Basin, Stone Pedestal, Stupa, Flagpole, Gate, Bell
			Folk belief	Shrine, Guardian Post, Menhir, Pictures
			Modern building	Public·Works, Religion Facility, Living Site, Park
			Battlefield, Persons · incident sites	Battlefield, Persons/incident sites, Legends
			Other structures	Bridge, Chimney, Farm equipment, Stone Ice Storage, Water Gauge, Ponds, Reservoir, Garden, Shipyard, Astronomy, Wind Streamer Pedestal
		Sunken ¹⁰⁷ Relics Cultural Asset	Prehistoric sites (Shell mound, settlements)	Residential, Shell Mound
			Historic site	Historic site
			Burial mounds · Dolmens	Ancient Tombs, Dolmen, Tomb
			Pottery Kilns	Pottery kilns
			Other sites	Historic Site, Sunken Sea Area
Natural Heritage	Scenic Site Natural Monument	Scenic Site	Natural Scenic Site	Natural scenic site
			Historic Cultural Scenic Site	Historic cultural scenic site
		Animals, Plants	Old Trees	Old Trees
			Silva · Habitat	Silva, Village forest, Rare species of flora, Habitats, Distribution limit area, Habitat, Breeding site, Bird visiting site, Animal species
			Natural Reserve	Natural Reserve
		Geology/ Mineral	Geological · Cave	Geological, Cave, Rocks, Minerals, Terrain, General geology
			Fossil	Fossil, Petroglyphs

Figure 29 Classification of Heritage by the Judging Criteria

<source: Hong-Seok Cho et al. "A Study on Improvement Examination Standard" (2015): 156>

¹⁰⁷ The term “sunken” in this context means invisible, either underground or underwater.

heritage types classified into ‘sunken relics cultural assets’ contains a few similar characteristics: 1) buried heritage that were already excavated and investigated, 2) cultural sites that rarely have any visual relics or resources on the ground. In this system, comparing ‘sunken relics cultural asset’ to other types of cultural heritage, such as palace, office or school building, temple, fortress, royal tomb and traditional house, the latter category contains visible resources above the ground and thus belong to ‘tangible cultural asset.’

IV. Assessment of the Adequacy of Height Regulation Application on the HCEPA

1. Overview of the Experiment

1) Introduction

The remainder of this paper will spend the rest part to introduce and explain the empirical research dealing with the problem on excessive building height regulation that was briefly mentioned in the Head section (Section I) and Section III-3. The hypothesis of this research is established as below:

<Hypothesis>

Cultural heritage that does not contain visible resources above ground has less necessity for building height regulation in its buffer zone than cultural heritage with visible resources on the site.

The hypothesis was drawn by a series of argument based on the basic idea of prospect, and on the practices of some countries for ensuring the visibility of cultural heritage or landmark. As the French case in Section II-3 explains, building height regulation serves for ensuring visibility of historic sites (see Figure 12 and 13). Considering the purpose of building regulation as a tool for protecting the visibility and character of a historic site, it is certain that the same regulation is not necessary for megalithic or prehistoric sites in which most of the cultural heritage resources are underground, not on the ground. A similar idea to ensure visibility of valuable resources was developed in the field of cultural and natural landscape. Mentioning two major

variables of landscape, prospect and refuge, Appleton (1975) explains prospect as “a landscape opportunity for keeping open the channels of perception.”¹⁰⁸ Implicit in such an explanation of prospect is the existence of landscape as a visible resource that is valuable. Such idea and example support that less efforts to secure the visibility of invisible resources are needed, and there should be no exception on cultural heritage resources that exist underground and are thus not visible.

2) Experimental Group and Control Group

As the purpose of the analysis is to deduct a result supporting the hypothesis, saying building height regulation for cultural heritage that is invisible is less necessary than for visible cultural heritage, cultural heritage will be divided into two groups: an experimental group and a comparison group. Invisible cultural heritage sites - mostly archeological - are classified as the “experimental group” and invisible cultural heritage resources are classified as the “comparison group.” This analysis does not contain natural heritage for the analysis, as this paper mainly focuses on the relationship between “invisible” cultural resources and their buffer zone management.

The experiment uses the classification tool of 26 sub-division which was introduced on page 67 (Section III-3-4), This classification tool clearly divides cultural heritage into two sub categories: “tangible cultural asset” and “sunken relics cultural asset,” and those sub categories nearly match with the classification of groups of this experiment. Overall, the “experimental group” and the “comparison group” are divided as below, illustrated with typical examples.

¹⁰⁸ Jay H. Appleton, *the Experience of Landscape* (New York: Wiley, 1974), 23.

- Experimental Group: “Prehistoric Site,” “Temple Site,” “Kiln Site,” and “Other Site”













		
a. Image Before Excavation	b. Excavation Works	c. Present Image
<p><Prehistoric Site> Archaeological Site in Oido, Siheung (source: Cultural Heritage Administration, 2019 (a, b) / Kyeongin-Ilbo, 2018 (c))</p>		
		
a. Image Before Excavation	b. Excavation Works	c. Present Image
<p><Temple Site> Godalsa Temple Site, Yeosu (source: Cultural Heritage Administration, 2019)</p>		
		
a. Image Before Excavation	b. Excavation Works	c. Present Image
<p><Kiln Site> Celadon and White Porcelain Kiln Site in Bangsan-dong, Siheung (source: Cultural Heritage Administration, 2019)</p>		
		
a. Image Before Excavation	b. Excavation Works	c. Present Image
<p><Other Sites> Archaeological Site in Bongnyong-dong, Sangju (source: Cultural Heritage Administration, 2019 (a, b) / Cultural Heritage Administration, 2014 (c))</p>		

Figure 30 Types of Cultural Heritage in Experimental Group

- Comparison Group: “Palace,” “Governmental Office,” “Confucian Building,” “Buddhist Temple,” “Temple (Shrine),” “Folk Village,” “Folk Belief,” “Burial Mound,” and “Other Structure”

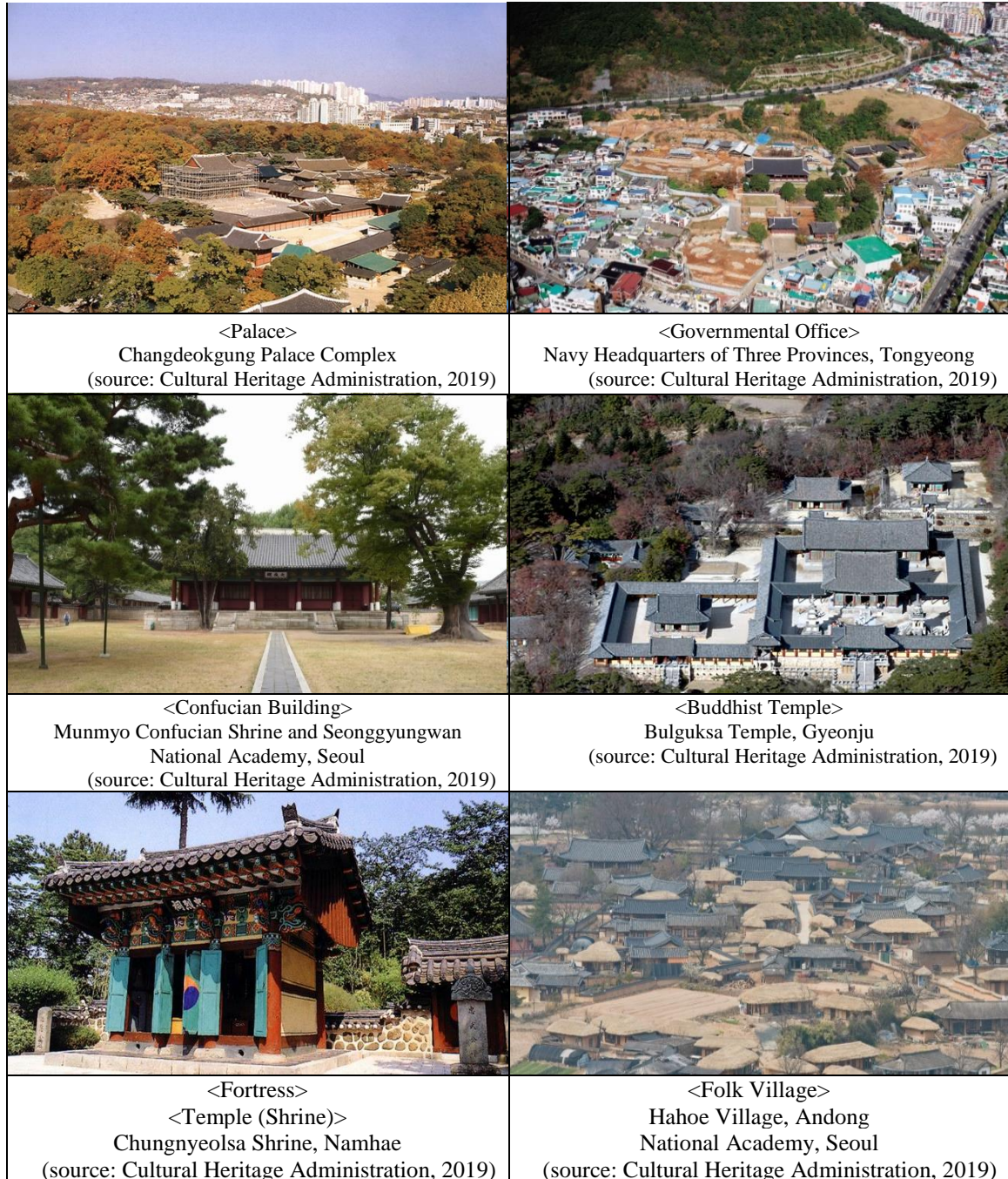


Figure 31 Types of Cultural Heritage in Comparison Group

Types that are classified as “sunken relics cultural asset,” such as “prehistoric site” and “pottery kilns,” are historic resources that are underground, and those, as invisible cultural heritage, are eligible to be classified in the “experimental group.” In contrast, types of “tangible cultural assets,” such as “palace,” and “temple” remain as visible form, and thus can be classified in the “comparison group.” However, the type “burial mound, dolmen” that is classified as “sunken relics cultural asset” is not classified as “experimental group” but “comparison group,” because cultural assets of this type are shaped as visible forms (mounded ground, stone structure).

3) Consideration of Stakeholders: Applicants, Reviewers and General Public

The analysis described immediately above and below focuses on the evaluation of the attitude of the two major stakeholder groups – applicants and reviewers – on the building height regulation around the invisible cultural heritage. Both applicants – the subject of the regulation on construction activities including building height regulation – and reviewers – the major actor of the management of construction activities regulation – are the most deeply engaged in the building height regulation, more than any other groups. Therefore, it is likely to be considered that building height regulations application on the HCEPA of invisible cultural heritage would be less appropriate if more than one stakeholder shows dissatisfaction. Details of the evaluation on the satisfaction of the two groups will be explained on page 76.

As the general public is not guaranteed a significant role in dealing with construction works reviewing process in South Korea, this paper will not deal with the attitude of the public on the building height regulation issue and its variances. The status of the public in South Korea is different from that in the United States. In the United

States, the public is assured to take part in the meeting of local Historic Commissions or Committees dealing with reviews of building construction, alteration and demolition, as well as a designation of historic properties, and are allowed to express their opinion. The public can also participate in Section 106 consultations. However, in South Korea, the public is not assigned to participate in any parts of the construction work reviewing process. The guideline of the National Cultural Heritage Committee of South Korea only allows civil servants in charge of the application case, experts, and the parties interested (applicants) to present their opinion in cases, as the Committee requires.¹⁰⁹ Moreover, no available data exists with which to evaluate the degree of satisfaction of the public on the building heritage regulation issues.

4) Data: Applicants of Variance (2007-2014, State-designated cultural heritage)

For the analysis, all the data of applicants for variances submitted from January 2007 to June 2014, are used. All the data is open to the public,¹¹⁰ in the form of the agenda in the minutes of the NCHC (written in Korean). The NCHC minutes contain the contents of each agenda including title, details of construction work proposal, and review result by the NCHC.

Overall, 3,048 individual data sets about construction work permit applications within the HECPA of cultural heritage of both the experimental and the comparison group are collected from the NCHC report for eight years (2007-2014). Among the 1,334 construction work permit applications, 723 (54.2%) are proposals for building variance.

¹⁰⁹ Cultural Heritage Administration, *Operational Guideline of National Cultural Heritage Committee* (Cultural Heritage Administration Published Ruling no. 207, April 26, 2019), Art. 16.

¹¹⁰ All the NCHC minute are uploaded on the Cultural Heritage Administration website in electronic form (PDF). "National Heritage Committee Minute," Cultural Heritage Administration (Last Modified May 2, 2019)

http://www.cha.go.kr/cop/bbs/selectBoardList.do?bbsId=BBSMSTR_1019&mn=NS_03_03_04 (accessed May 3, 2019)

During the period under experiment, 348 building variance proposals within the HCEPAs from the experimental group (n=71) are found, whereas 375 building variance applications within the HCEPAs of the comparison group (n=97) are submitted during the same period.

<Experimental Group>					
	Prehistoric Site	Temple Site	Pottery Kiln Site	Other Sites	Total
Number of HCEPA	20	21	16	14	71
<Comparison Group>					
	Palace	Government Office	Confucian Building	Buddhist Temple	Other Structure
Number of HCEPA	18	10	8	3	10
	Temple (Shrine)	Folk Village	Folk Belief	Burial Mound Dolmen	Total
Number of HCEPA	7	6	1	34	97

Figure 32 Number of HCEPAs by Groups <by author>

<Experimental Group>					
	Prehistoric Site	Temple Site	Pottery Kiln Site	Other Sites	Total
Number of Variance Application	154	122	204	157	348
<Comparison Group>					
	Palace	Government Office	Confucian Building	Buddhist Temple	Other Structure
Number of Variance Application	101	36	27	9	21
	Temple (Shrine)	Folk Village	Folk Belief	Burial Mound Dolmen	Total
Number of Variance Application	21	27	1	132	375

Figure 33 Number of Building Variance Application by Groups <by author>

5) Experimental Design

The hypothesis of this analysis is examined in two factors: a) degree of application satisfaction (developer, landowner, etc.) with building height regulation, and b) degree of satisfaction of reviewing part (reviewer, member of NCHC, etc.) with

building height regulation. The two formulas in the below will be applied for measuring both factors above.

(Group A=Experimental group, Group B = Comparison Group)

<p style="text-align: center;"><Applicant Satisfaction Explanation Formula: $P(a)$></p> $P(a) = \left(\frac{(\text{Number of variance applications in Group A})}{(\text{Number of HCEPAs in Group A})} - \frac{(\text{Number of variance applications in Group B})}{(\text{Number of HCEPAs in Group B})} \right)$ <p style="text-align: center;"><Reviewer Satisfaction Explanation Formula: $P(b)$></p> $P(b) = \left(\frac{(\text{Number of variances approved in Group A})}{(\text{Number of variances applications in Group A})} - \frac{(\text{Number of variances approved in Group B})}{(\text{Number of variances applications in Group B})} \right)$
--

Figure 34 Formulas for Examining Hypothesis <by author>

The formula $P(a)$ deducts the average number of permit application by different groups and compare the values between the two groups. The former part,

$\frac{(\text{Number of variance applications in Group A})}{(\text{Number of HCEPAs in Group A})}$, shows how many building height application

were performed per one HCEPA of invisible cultural heritage on average (Group A). In

the same way, the latter part, $\frac{(\text{Number of variance applications in Group B})}{(\text{Number of HCEPAs in Group B})}$, explains the

average number of applications per HCEPA of visible cultural heritage (Group B).

The value of $P(a)$ will show the degree of dissatisfaction on the part of applicants. If the average number of the experimental group (=Group A) turns to be relatively higher than that of the comparison group (=Group B) $\langle P(a) = 0 \rangle$, it is considered that the applicants are less satisfied with building height regulation within the HCEPAs of invisible cultural heritage. Also, the higher average number of a group is regarded to show a higher correspondingly degree of dissatisfaction of the applicants on building height regulation.

The formula $P(b)$ deducts the rate of variance approval by the reviews. The former part, $\frac{(Number\ of\ variances\ approved\ in\ Group\ A)}{(Number\ of\ variances\ applications\ in\ Group\ A)}$, shows the rate of the approval of building height applications in the HCEPAs of invisible cultural heritage. The latter part, $\frac{(Number\ of\ variances\ approved\ in\ Group\ B)}{(Number\ of\ variances\ applications\ in\ Group\ B)}$, explains the rate of approval in the HCEPAs of visible cultural heritage.

The formula $P(b)$ will show the degree of dissatisfaction of on the part of reviewers. If the average number of the experimental group (=Group A) turns to be relatively lower than that of the comparison group (=Group B) $\langle P(b) = 0 \rangle$, it is considered that the reviewers agree less with applying building height regulation within the HCEPAs of invisible cultural heritage, and regard that the existing building height regulation is burdensome and need to be alleviated. Also, the higher average number of a group is regarded to show the higher the degree of dissatisfaction by the reviewers.

2. Analysis

1) Average Number of Variance Application per HECPA

Figure 35 shows the average number of variance application per HCEPAs by each cultural heritage types during the period under analysis. As seen in Figure 35, the value of average variance per HCEPAs of the experimental group (Group A, 4.90) is turned out to be higher than that of the comparison group (Group B, 3.87), and thus the value of $P(a)$ is turned out to be higher than 0 ($P(a) = (\frac{348}{71}) - (\frac{1,284}{284}) = 4.90 - 3.87 = 1.03 > 0$).

<Experimental Group>

	Prehistoric Site	Temple Site	Pottery Kiln Site	Other Sites	Total
Number of Variance Application	4.00 (=80÷20)	2.52 (=53÷21)	6.06 (=97÷16)	8.43 (=118÷14)	4.90 (=348÷71)

<Comparison Group>

	Palace	Government Office	Confucian Building	Buddhist Temple	Other Structure
Number of Variance Application	5.61 (=101÷18)	3.60 (=63÷10)	3.38 (=59÷10)	3.00 (=9÷3)	2.10 (=21÷10)
	Temple (Shrine)	Folk Village	Folk Belief	Burial Mound Dolmen	Total
Number of Variance Application	3.00 (=21÷7)	4.50 (=27÷6)	1.00 (=1÷1)	3.88 (=132÷34)	3.87 (=375÷97)

Figure 35 Average Number of Variance Application by Cultural Heritage Types <by author>

2) Number of Approval, Disapproval and Defer

The review decision, as mentioned on page 65, is concluded either as “Yea” or “Nay.” However, the reviewers – members of the NCHC – can defer the decisions on the agenda in case they cannot make decisions with the given documents or information. So, the results of the NCHC reviews collected for this experiment are concluded as: a), approved, b), disapproved, and c), deferred.

	Number of Variance Application (a)	Number of Approval (b)	Number of Disapproval (c)	Number of Defer (d)	Rate of Approval (%) (e=b/a×100)
Prehistoric Site	80	39	35	6	48.8%
Temple Site	53	22	26	5	41.5%
Pottery Kiln Site	97	56	39	2	57.7%
Other Sites	118	61	40	17	51.7%
Experimental Group Total	348	178	140	30	51.1%

Figure 36 Results of Review of Experimental Group by Cultural Heritage Type <by author>

	Number of Variance Application (a)	Number of Approval (b)	Number of Disapproval (c)	Number of Defer (d)	Rate of Approval (%) (e=b/a×100)
Palace	101	62	20	19	61.4%
Government Office	36	14	15	7	38.9%
Confucian Building	27	15	9	3	55.6%
Buddhist Temple	9	5	3	1	55.6%
Temple (Shrine)	21	11	9	1	52.4%
Folk Village	27	11	11	5	40.7%
Folk Belief	1	0	1	0	0.0%
Burial Mound, Dolmen	132	70	53	9	53.0%
Other Monuments	21	14	6	1	66.7%
Comparison Group Total	375	202	127	46	53.9%

Figure 37 Results of Review of Comparison Group by Cultural Heritage Type <by author>

Both Figure 36 and Figure 37 shows details of results of the NCHC review on building variance application cases and the rate of approval as well. According to Figure 36, 178 cases out of 348 variance application received approval, which is 34 cases more than were disapproved. The rate of approval is calculated as 51.1%.

According to Figure 37, the rate of approval of the comparison group is 53.9%, slightly higher than that of the experimental group, at 51.1%. Among the total application number (n=1,284), 748 cases could receive approval from the NCHC review. And thus, the Value of $P(b)$ is turned out to be -0.003 that is slightly lower than 0.

3) Result

As mentioned above, the values of $P(a)$ and $P(b)$ is deducted as below:

$$P(a) = \left(\frac{348}{71}\right) - \left(\frac{375}{97}\right) = 4.90 - 3.87 = 1.03 > 0$$

$$P(b) = \left(\frac{178}{348}\right) - \left(\frac{202}{375}\right) = 0.511 - 0.539 = -0.0262 < 0$$

The result that $P(a) > 0$ shows that the applicant part (landowner, developer, etc.) are much more dissatisfied with building height regulation around invisible cultural heritage sites than that around visible cultural heritage sites. Such dissatisfaction is revealed as a larger number of building variance application per heritage site of the experimental group than that of the comparing group.

In contrast, as the value $P(b)$ shows, the reviewing part (members of NCHC, reviewers) does not consider the invisibility factor as considerable when dealing with building variance applications. The approval rate of the experimental group (51.1%) marks slightly lower value comparing to the comparing group (53.9%), which means that reviewers do not deal quite differently with building height regulation issues within the HCEPA cultural heritage, even though it does not contain visible elements on the ground.

In conclusion, even though it is not all, some stakeholders (of the applicant part) are less satisfied with building height regulations around cultural heritage sites with no visible component.

V. Conclusion

This paper has discussed different types of buffer zone systems (or development controlling mechanism) in South Korea and other countries and examined building variance related data to support the idea that building height regulation near cultural heritage sites with no visibility is less necessary.

In the first part, three international case studies on construction controlling mechanism were introduced in detail. The World Heritage Site case of UNESCO showed that having buffer zone around cultural resources has been becoming a crucial factor as a way to enhance the preservation of historic resources. Similar to the UNESCO case, the French government has established buffer zones for every historic site, which are either designated or inscribed by the governmental body. Only historic sites that are either buildings or structures can have their own buffer zone and all the buffer zone contain a rounded-shape uniform shape. In contrast to the UNESCO and France case, the United States has not introduced a buffer zone system per se. However, the Section 106 review based on the National Historic Preservation Act utilizes the APE – a *de facto* buffer zone - to control and revise construction proposals in a way to mitigate or abate an adverse effect toward historic resources.

The second part introduced the South Korean buffer zone system, which in many ways is similar to the buffer zone management system to France, from which it is derived. Reintroduced in 2000, South Korean buffer zones are established surrounding State- or local- designated cultural heritage by the maximum scope of either 300 meters (local-designated) and 500 meters (State-designated). The Cultural Heritage Administration of South Korea and local government have established the Standards of

Permittable Activities to nearly all HCEPAs over which they have jurisdiction, and these Standards contain the maximum limit of construction works, including maximum building heights, which shows a guideline on the range of allowable construction activities within which any permissions are not needed. If a construction plan exceeds the limit, it is reviewed by the National Cultural Heritage Committee or local cultural heritage committees for the variance.

Interestingly, the South Korean buffer zone – the HCEPA - is applied to all types of cultural heritage, including some archaeological sites, such as prehistoric sites and kiln sites, where the excavated cultural remains are covered by the ground and thus do not contain any visible resources on the ground. France considers “visibility” of cultural as a major value when reviewing construction works within the buffer zone, and thus archaeological site, such as prehistoric site and megalithic sites, are not allowed to have their own buffer zone in France. This treatment of buffer zones around below-ground invisible resources is a major difference between French and South Korean preservation policy.

Based on the idea that building height regulation near the cultural heritage sites with no visible resources is less necessary, an empirical data analysis to prove the idea was developed and explained in the last part of this thesis. The experiment, dividing cultural heritage types into the experimental group (cultural heritage that contains no visible elements) and the comparison group (cultural heritage with buildings or structures that are visible), analyzed 1,825 building height variance application cases within the HCEPAs of State-designated cultural heritage (from 2007 to 2014) and examined attitudes of the major stakeholders – applicants and reviewers - towards building height

regulations around invisible cultural heritage. The result says that the applicants show dissatisfaction about building height regulation related to invisible historic resources, whereas the reviewers do not. By the given analysis, it can be said that applying building height regulation around invisible cultural heritage has been controversial. However, it is difficult to say that building height regulation is in all cases less needed to the HCEPAs of invisible heritage, as the reviewers do not show significant dissatisfaction on applying building height regulations to those areas.

The analysis was performed using data of State-designated cultural heritage and covered the cases of permit application and review achieved between 2007 and 2014. Further analysis on building height permit will provide rich and accurate information on the attitude of stakeholders and thus the necessity of building height regulation around invisible cultural heritage. Analysis of the data of the periods that are not considered in this paper will be helpful to further examine the research question this paper raised. Analysis of local-designation will deliver added information about the attitude of local stakeholders.

As the cases of UNESCO World Heritage sites and other countries show in this paper, buffer zone management has become a more and more crucial part of heritage management. South Korea, having reinstated the buffer zone modeling after French buffer zone system in 2000, has been working well for suppressing the desires of development, but has not been a flawless mediator to mitigate the conflicts between development and preservation. The HCEPA should be an area where both human activities and preservation of heritage values are guaranteed, and thus sustainable preservation is realized. And the improvement of the HCEPA should be performed to

meet the notion of sustainable preservation, considering the specific characteristics of cultural heritage resources.

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