

Plan for Surveying and Informatization of Hanok Housing Status

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This study suggests a plan for Methodical information service of nationwide *Hanok* by researching and informatizing current *Hanok* status. Despite recent *Hanok* market outburst and increasing demands for *Hanok* policy, there is still a concern over demolition of *Hanok* as a result of imprudent development. Moreover, the absence of *Hanok* statistics over the country impede systematic policies for *Hanok* resupply and preservation. Therefore this study aims to provide a effective plan for authentic nationwide *Hanok* status database construction.

Hanok status database refers to all the tangible/intangible information on the present *Hanok* condition. It includes various informations; statistical information such as geographical distribution, construction year and floor area of *Hanok*, individual building information like actual measurement drawing and *Hanok* related industry and policy information. Likewise, the database consists of academic/technological/political content, the amount of the database is extensive. So the *Hanok* status database construction needs long-term project design and precise strategy.

A prerequisite for systematization of *Hanok* status database is categorization of data. This might be conducted by the criteria like contents, the process of acquisition, type of media, geographical references, the purpose of records et cetera. However, with these criteria, it is hard to definitize the purpose and application of data collection and decide the extent of data collection. Since, in the initial establishment of *Hanok* policy, the information with more urgency and value should be extracted in advance, the strategic selection of criteria is needed.

In this study, to decide the category for *Hanok* status data collection, the information needs were first analyzed. This process were conducted by formulating each user's *Hanok* status database application scenarios. Through collection, accumulation and manufacture, the selected *Hanok* status data criteria can make the systemic *Hanok* status database promoting information flow and providing the information in accordance with the user's need.

Diverse application scenario was considered to filter the category of *Hanok* status data extration based on information needs. As a first step, issues were drawn by analyzing current worldwide architectural · urban information websites and national research works beyond architectural field. Based on these issues, concrete types of *Hanok* database users were assumed and each users' private scenario was written. For example there are people who live or want to live in *Hanok*, experience *Hanok* and study *Hanok*, government officials in charge of *Hanok* policy, *Hanok* researchers and *Hanok* architects et cetra. The categories were extracted by creating several series of systemic questions base on each users' needs. Theses filtered categories can become the spontaneous and practical information for the promotion and preservation of *Hanok*.

To fill each category, the source and collecting measures of information should be considered first. In other words, methodology of *Hanok* survey becomes the priority over all other things, and it is effective to make the order of data input corresponding to the order of *Hanok* status survey. Thus, *Hanok* status information was classified according to the hierarchy of *Hanok* status survey. The hierarchy of *Hanok* status survey is roughly classified into basic survey and detailed survey on the basis of depth and difficulty. And it is categorized into five stages in detail; pre-survey, basic field survey, detailed field survey, field measurement survey and field dismantling survey.

Basic *Hanok* survey consists of two steps; pre-survey and basic field survey. This provides basic database and statistics of *Hanok* via complete enumeration of nationwide *Hanok*. In the pre-survey, buildings possibly being categorized as *Hanok* can be sorted out by collecting information from websites and satellite images without visiting sites. Basic field survey is a step conducted by non-professional researchers on the basis of pre-survey results. This step aims to judge whether the building is

Hanok and the status of *Hanok* by recording the external characteristics and street-scapes that do not need permissions by residents. By conducting two initial stages of *Hanok* survey, current distribution statistics of *Hanok* such as numbers, density, and the degree of dilapidation can be analyzed. The result would have practical use in observing characteristics and time-based transformation of *Hanok* villages supported by policy.

Detailed *Hanok* survey covers three steps of detailed field survey, field measurement survey, and field dismantling survey. Detailed *Hanok* survey is focused on limited area. Detailed field survey is a step for researcher to record lifestyles of the residents by interviewing building owners. Field measurement is a step of conducting hand measurement drawing with instrumental survey control and producing maps with basic dimensions. Dismantling of *Hanok* is for detailed drawings with construction dimensions of buildings. People who have required professional education only can be researchers carrying out detailed *Hanok* survey. The depth and steps should be regulated by the needs of survey and the results should be applied for more professional purpose.

Contrary to the case of detailed *Hanok* survey, basic *Hanok* survey, dealing with massive information, is conducted by non-professional researchers, thus it needs a specific manuel. So this study developed a data input system using registered building data, certificate of land use plan, official land values, satellite images, and internet street views. Also a manuel for *Hanok* survey comprising specific guidances for recording building materials and taking photos of site condition was produced.

To test the operations of *Hanok* survey manuel and *Hanok* informatization plan, a pilot survey and web-service was applied to the 11th district of Gahoe-dong. In addition to the density of *Hanok*, the diverse distribution of preservation policy, landscape plan, land planning, landscape and historical records was estimated suitable for demonstrational survey area to get successful feedbacks. Flaws revealed in the process of application of demonstrational *Hanok* survey were projected to *Hanok* survey manuel and checklists for *Hanok* surveys were also updated.

55 buildings with possibly being *Hanok* were selected from pre-survey. The

following basic field survey confirmed 52 *Hanok* among them. The following detailed *Hanok* survey is completed by sampling some of these.

This constructed Gahoe-dong *Hanok* status database was used for the verification of hypothetical database system based on application scenarios. The use of this database was also for the information input process as well as the announcement and management of research results.

Lastly, a road map for *Hanok* survey is organized, suggesting survey period, survey cycle, and systematic process according to the surveyor. The nationwide *Hanok* survey and research project that the National Hanok Center will plan to propel was fully considered. So the idea to estimate the area, cost and time of each survey step and utilize the present administrative database was also considered.

Hanok status database is expected to classify the type of *Hanok* for differentiated policy support, to propose the political definition and decision standard of *Hanok* and to be a ground for localized *Hanok* policy establishment. The political application such as the assessment of the appropriateness of policy measures, the basis for *Hanok* support and promotion policy and the timeliness of *Hanok* policy is also expected.

Key words : Hanok database, Hanok survey, Hanok statistics, Hanok Informatization