Origin of NILIM's Urban Planning Research

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Keywords: NILIM's Urban Planning Department, the 70th anniversary of the founding of the Building Research Institute, the 10th anniversary commemorative book, memoirs and records of round-table discussions

1. NILIM and the Building Research Institute

The National Institute for Land and Infrastructure Management (NILIM), which was founded in 2001, is a relatively young organization, marking its 15th anniversary of the founding. In 2001, as part of the reorganization of the three organizations under the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), in other words, the Public Works Research the Institute (PRI), the Building Research Institute (BRI) and the Port and Airport Research Institute (PARI), NILIM succeeded some of the key roles and administrative functions of these three organizations. Therefore, it is safe to assume that NILIM's research activities have their origins in the three organizations. As far as urban planning studies are concerned, this background is reflected in NILIM's existing organization. The structure of the four divisions under the current Urban Planning Department—Urban Planning Division, Urban Facilities Division, Urban Disaster Mitigation Division and the Urban Development Division—largely adheres to the fundamental structure of Urban Planning Department (Research Department No. 6) under the former BRI.

BRI was founded in 1946 under the name of the Technical Research Institute of the War Damage Reconstruction Agency. Since then, the name and roles of the institute have changed several times before BRI of the National Research and Development Agency has been formed in its current form. BRI is actively engaged in fulfilling its social mission of making building research in a public capacity, which cannot be fulfilled by the private sector, by sharing roles and through mutual cooperation and coordination with NILIM, an organization belonging to the national government.

BRI marked the 70th anniversary of its founding in October 2016, and on that occasion, it published the 70th anniversary commemorative book. BRI has been publishing an anniversary commemorative book every 10th anniversary year since its founding. These anniversary commemorative books serve as valuable materials for NILIM, the successor to BRI, to reflect on the past and think about the future. In this paper, we would like to trace back to the origin of NILIM's urban planning research for our future guidance by consulting the first 10th to 40th anniversary commemorative books out of a total of seven anniversary commemorative books published to date.

2. Commemorative Book of 10th Anniversary of the Founding

The purpose of these anniversary commemorative books is to summarize the records of BRI's activities as a research institute for its future development and growth and to express appreciation to people concerned at home and abroad for their endeavors and ask for their continued support. The first anniversary commemorative book was published in October 1955, the 10th anniversary year of the founding. This is a booklet of about 50 pages, which consists of its history, organizational structure, staff, budget, research activities for the past ten years, recent research results, and major research facilities that summarize BRI's situation during the founding period succinctly. Pages carrying black and white photos showing the scenes of testing at research facilities are inserted here and there in the booklet, which reminds us that a test-oriented research approach was already taken during the founding period. A test-oriented research approach continues to this day as a tradition of both NILIM and BRI.

The introduction by Mr. Kenzaburo Takeyama, BRI's second president, states as follows: "BRI has five divisions, that is, Research Division No. 1 for urban planning and building economy, Research Division No. 2 for materials, Research Division No. 3 for architecture, Research Division No. 4 for construction method, and Research Division No. 5 for building design and planning and fire prevention. Depending on the types of investigation and research, all divisions flexibly cooperate to achieve the best research outcome as a whole. This is the unique characteristic of this research institute."

From the beginning, BRI took up urban planning research, an unexplored field of research back in those days, which was not yet adopted and pursued by universities and other institutions. It also undertook not only technical research but also social and economic research, trying to resolve wide-ranging issues in cooperation with related fields. I think it is important for NILIM to learn this approach adopted by the then BRI from the standpoint of foresightedness and comprehensiveness.

The introduction also states, "As described above, the scope of research activities to be conducted by this research institute is quite extensive, ranging from urban planning to building technology as a whole. Furthermore, as there is a far fewer number of building research institutes in Japan relative to construction volumes and also there are quite a large number of requests for research guidance from external parties, it is quite a painstaking process to cope with these situations with a limited number of personnel and a limited budget."

During the chaotic period immediately after World War II, in addition to research facilities, personnel and money were more important than anything else to support research activities. BRI recruited capable researchers from the pre-war Finance Ministry and Home Ministry

and from Japan's pre-war Air, Sea, and Ground Forces, among other things, trying to cover a wide range of research fields with a limited number of personnel. It is not difficult to imagine all the extraordinary difficulties that BRI had to overcome in fulfilling its missions. I am fully aware that it is not fair to compare then and now because of differences in society and technology. That said, the most important challenge for a research institute has always been and will always be to secure capable personnel and a sufficient budget.

3. From Memoirs and Records of Round-Table Discussions

In addition to a history of research activities as an organization, memoirs of individual researchers and records of round-table discussions by BRI's successive top executives appear in the 20th anniversary commemorative book and onwards. They are an intriguing read as stories about difficulties, future dreams, and goals during relevant periods, and together with the personalities of authors are very well told. At the risk of being criticized for using arbitrary interpretation, I would like to introduce some of them as follows:

In the 20th anniversary commemorative book, the following statement is made about the comprehensiveness of urban planning: "Possibly our research into the boundaries of the link between science/technology and society/economy, such as what conditions are required to apply science and technology to people's actual lives and society and what are the merits and demerits of doing so, as well as into the technical structure and systems of a comprehensive plan, may not have been sufficient. Therefore, urban planning that belongs to such research fields should be one of the areas where we need to step up our research efforts, going forward." (Mr. Hisashi Irisawa, the second Director of Research Division No. 1)

Back in those days, we were entering into an era of urbanization with the rapid changes in postwar society and the rapid progress in science and technology. Today, on the other hand, we are in an era where urban changes may be anticipated in line with the population decline due to lower birth rates and an aging population, as well as changes in industries and society due to technological innovations, such as the internet of things (IoT), artificial intelligence (AI), automated driving, and smart cities. I think it is equally necessary to promote the research and development of urban planning by forecasting and integrating methods that can cope well with increasingly more sophisticated and complex needs and constraints.

In the 30th anniversary commemorative book, the following statement is made about the foresightedness of research: "As the problems we deal with are related to urbanization and housing, we need to engage in proactive research activities to ensure that we can have our research outcomes reflected in the policymaking process. We cannot make it in time with a conventional reactive approach where we start analysis only after a problem occurs." (Mr. Hisashi Irisawa)

I believe that the then BRI incorporated the needs of society more proactively. The fact that a research institute under a national administrative agency tends to have the ability to have quicker access to information is pointed out as the reason why the then BRI could do so, as in the following: "We can have access to advance information on research themes through discussions with an administrative agency's officials. The officials of an administrative agency are usually very busy with their duties at hand but they can provide long-term and broad views about things when they discuss freely." (Mr. Hisashi Irisawa)

In addition, the following statement is made about BRI's comprehensiveness: "I think that the fact that BRI has the Urban Planning and Housing Department is highly significant in terms of the positioning and integration of research activities performed by various departments in construction administration. I think BRI is one of the rarest research institutes in the world in that it has comprehensive integration functions." (Mr. Yasunori Koizumi, the sixth president)

NILIM, which was founded as a result of the reorganization of PRI, BRI, and PARI, is precisely the general research institute. It is NILIM's challenge to create a synergy effect by integrating, under the land and infrastructure management policies, a variety of fields with different backgrounds in terms of academics, research, job category, and organization.

Finally, I would like to conclude this paper by presenting a statement about the future role and vision of BRI included in the 40th anniversary commemorative book.

"It appears that, keeping pace with ever-changing society, the relationship between BRI and the private sector has been changing dramatically from those in our days and our predecessors' days. For example, what I talked about a while ago (i.e. project-based applied research/ feasibility research) may not have fit in with the BRI of the 20th anniversary period, but the quality of people joining BRI or discipline in BRI has started to change by working on such themes. Therefore, I think the basic principle should be not to fall into a stereotypical way of thinking." (Mr. Kiyoshi Nakano, the eighth president)

[List of References]

- "The Tenth Anniversary of the Founding of the Building Research Institute", October 1955, The Building Research Institute of the Ministry of Construction
- 2) "The Building Research Institute: A History of the First 20 Years", November 1966, The Building Research Institute of the Ministry of Construction
- "The Building Research Institute: A History of the First 30 Years", November 1976, The Building Research Institute of the Ministry of Construction
- 4) "The Fortieth Anniversary of the Founding of the Building Research Institute: A History of the Past 10 Years", October 1986, The Building Research Institute of the Ministry of Construction