
STUDY ON TRANSITION OF ACCREDITATION SYSTEM FOR ARCHITECTURAL EDUCATION IN JAPAN

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INTRODUCTION

In recent years, architectural education in Asian countries went through rapid progress in its internationalization. The globalization of higher education makes national borders less relevant. Students' and faculties' mobility has exploded, especially in EU countries following the introduction of the Bologna Accord and the ERASMUS programs. Such trends are certainly affecting the situation in Asian countries. Accreditation system for architectural education programs became further important in order to provide validity and equivalency. It will also ensure fluid transference for students who try to pursue their professional study in other countries.

Following the UIA 24th World Congress of Architecture in Tokyo, September 2011, the discussion on the internationalization of architectural education became more active in Japan. In addition, the decrease of gross population and increase of aged population are expected in the next decades. In such circumstance, it was discussed that an education and training of human resources who can work across the boundaries will become more important.

The purpose of this study is to provide an overall perspective of the architectural education in Asia and the recent moves. It is also aimed to provide useful insights for improvements of the accreditation system and the educational programs in Japan.

METHOD

First, an overview of architectural education and accreditation system in Asian countries is provided. The authors have conducted preliminary investigation through books, publications and websites, and collected information on the architect licensing system and its educational requirement. Then, the onsite investigations were conducted on accreditation/validation agencies and accredited universities in South Korea, Hong Kong, Singapore and Sri Lanka. The information collected through the onsite investigations mainly includes; a) the educational requirements for the architect license, b) the system of accreditation/ validation of architectural education, c) the requirements of internships for the architect license, d)

the information of the accredited programs. Additional surveys were conducted to examine information on British and American licensing systems and their influence on Asian countries.

Secondly, the basic structure of Japanese accreditation system and its recent modifications are reported. The Japan Accreditation Board for Engineering Education, hereinafter call "JABEE", is currently solely in charge of accreditation of architectural education in Japan. The authors have collected information from the publications and website of JABEE. Additional information was collected through seminars and meetings which were held for faculties of architectural schools. Then, the structure of the system and its recent moves were summarized.

Thirdly, efforts of Meiji University toward JABEE accreditation are described. Meiji University, hereinafter called "MU", in Tokyo, Japan where one of the authors is currently teaching, is in the process of preparation for the JABB accreditation in the near future. MU conducted several major changes of its curriculum, revised its student performance criteria, and decided to establish a new graduate program in order to meet JABEE's 2012 criteria for architectural accreditation. The authors collected information of the modification and analyzed the relationship to the accreditation system.

Lastly, the outcomes of the aforementioned survey are examined and notable points to accommodate the mutually recognizable system in architectural education in Asia are considered.

EDUCATION FOR ARCHITECT LICENSE AND ACCREDITATION SYSTEM IN ASIA

Overview and influence from British and American systems

The UNESCO-UIA charter for architectural education has set a basic framework for architectural education programs. Several accreditation agencies in Asian countries have already acquired a system recognition from the UNESCO-UIA Validation Council for Architectural Education. In addition, the Canberra Accord was signed by seven accreditation/validation agencies in pan-pacific countries in 2008. It

intends to facilitate the portability of educational credentials between the countries that have equivalent accreditation systems. Aforementioned trend seems to be moving toward a common platform to assure equivalency of architectural education in the region.

The authors conducted the following on site investigations and collected information as described in the method section. The outcomes were sorted out in Table 1.

Country Name, Agency / University Visited, Author in charge, Date

1. Singapore, National University of Singapore, TT (Tomoaki Tanaka), August 2011
2. Sri Lanka, SLIA: Sri Lanka Institute of Architects, University of Moratuwa, KA (Koichiro Aitani), September 2011
3. United Kingdom, RIBA: Royal Institute of British Architects, ARB: Architects Registration Board, KA, September 2011
4. N/A, UIA World Congress of Architecture (Tokyo), Education Commission, TT, September 2011

5. N/A, AIA: American Institute of Architects, North West and Pacific Region Conference (Tokyo), TT, November 2011
6. South Korea, KAAB: Korean Architectural Accrediting Board, Seoul National University, Sejong University, TT&KA, January 2012
7. USA, Nebraska University in Lincoln, TT, February 2012
8. Hong Kong, HKIA: Hong Kong Institute of Architects, ARB: Architects Registration Board, TT&KA, March 2012

There are influences from the British system and the American system that coexist in the accreditation/validation systems in Asia due to the historical context. The British influence is more notable in its former colonies such as Singapore, Hong Kong, Sri Lanka, etc. There are universities who obtained accreditation from RIBA in those countries. Most of those countries have started or are planning to start their own accreditation/validation systems. The American influence is notable in South Korea.

Item	Japan	United Kingdom	The United States	South Korea	Hong Kong	Singapore	Sri Lanka
Group related to Architecture	Japan Federation of Architects & Building Engineers Association Japan Federation of Architect Office Association JIA: Japan Institute of Architects BCS: Building Contractors Society	RIBA: Royal Institute of British Architects	AIA: American Institute of Architects	KIRA: Korean Institute of Registered Architect	HKIA: Hong Kong Institute of Architects	SIA: Singapore Institute of Architects	SLIA: Sri Lanka Institute of Architects
Architect Attestation and registration	The Minister of Land, Infrastructure and Transport	ARB: Architects Registration Board	NCARB: The National Council of Architectural Registration Boards	KAAB: Korean Architectural Accrediting Board	ARB: Architects Registration Board	BOA: Board of Architects	ARB: Architects Registration Board
Number of Registered Architects (number of architects for 10,000 of population)	First Class Architect: 344,067 (27/10,000)	33,000 (5/10,000)	105,312 (3/10,000)	16,587 (3/10,000)	2,733 (4/10,000)	1,233 (2/10,000)	700 (0.3/10,000)
Examination	First Class Architect Examination	Professional Practice Examination (Part3)	Architect Registration Examination	Architect Qualifying Examination	Architect Qualifying Examination	PPE: Professional Practice Examination	Professional Practice Examination (Part3)
Grounds Method and Regulations	Architect Law	Architect Registration Method in 1931	State Law	Architect Law	Hong Kong Architecture Regulations	Architectural Method and Architect Law	Rule of Sri Lanka Institute of Architects
Qualification	Architect (First Class, Second Class, and Wooden Structure)	Architect	Architect	Architect (Second Class was ceased in 1977)	Architect	Architect	Architect
Main Qualifications of Candidacy for License Examination (Academic Background etc. + Practice)	Recognized Architecture and Construction Course (Typically 4 Years of Undergraduate Program) Practical Experience of 2 Years + (new requirement actually limited to obtain knowledge and ability necessary for design and construction managements)	3 Years Curriculum (Correspond to Part1) authorized by SLIA + 2 Years Curriculum (Correspond to Part2). Practical Experience 2 Years or More	Undergraduate Architecture Course (Five years or Six years) recognized by NAAB or Graduate School Professional Courses (2 years or 3 and a half years) Internship of 3 Years (Two Years in a Part of States).	In addition to the recognition of bachelor program of five years authorized by KAAB, 4 Years Bachelor Course+ 2 Years Master Course is emerging Practical Experience of 3 Years or More	3 Years Curriculum (Correspond to Part1) authorized by HKIA and ARB + 2 Years Curriculum (Correspond to Part2). Practical Experience 2 Years or More	3 Years Curriculum (Correspond to Part1) authorized by BOA + 2 Years Curriculum (Correspond to Part2). 4 Years Bachelor Program + 1 Year Master Program in recent years. Practical Experience of 2 Years or More	3 Years Curriculum (Correspond to Part1) authorized by SLIA + 2 Years Curriculum (Correspond to Part2). Practical Experience 2 Years or More

Table 1. Architect System and the authentication system of overseas countries

Most schools in South Korea used to have 4-year undergraduate but changed the system to provide 5-year B.Arch. programs. KAAB was established for the accreditation.

In the following sections, notable results of the survey conducted on South Korea and Hong Kong are described.

Situation in South Korea

Architect qualification system of South Korea is under the progress based on the launch of Korean Architectural Accrediting Board (KAAB) in 2002 and the initiation of 5 Year Bachelor programs. KAAB is the united organization of several architectural/construction institutions. KAAB is currently in charge of accreditation and qualification of architectural education. In 2006, it started the operation and accredited 3 architectural programs. 30 programs have been recognized as globally competitive programs since then.

In order to become candidates for the architect qualification, an applicant must fulfill the education of accredited program, a practical experience, and the examination. The architect law in South Korea was revised in 2011, and the condition of the qualification has changed for the aforementioned accredited programs. By the end of the transition period, all the courses need to be re-accredited by the new system. On the other hand, KAAB recently accredited a joint 4 year bachelor + 2 years master program and a sole master program in addition to 5 year bachelor programs. The shift of the education system to 5 year program requires a great change of the curriculum and the educational management. Therefore, rather easier approaches of utilizing the existing bachelor program and establishing a new master program drew attentions. The remaining universities in their transitions considered the 4+2 system as an alternative, and the numbers of schools who will adopt this system are expected to increase¹.

Even if KAAB is not a pioneer, it is going to make the best use of results regarding the recent modification of the system that includes establishment of accreditations, recognitions of architecture education and improvement of licensing system. Recently, KAAB cooperates countries in Asia and the Middle East that are in the process of setting up the accreditation system in the future.

Situation in Hong Kong

The base of the architect qualification system of Hong Kong is following 3+2 year systems of RIBA (Royal Institute of British Architects) in the British colonial age. Applicants have to complete a three-year academic program on Architectural Studies, and subsequently pursuing a further two-year program leading to the second degree of Master of Architecture. These programs are recognized by the Hong Kong Institute of Architects (HKIA), and the Architects Registration Board of Hong Kong (ARB). In Hong Kong, the HKIA accredited schools are the University of Hong Kong: Bachelor of Arts in Architectural Studies, B.A. (Arch. Studies) + Master of Architecture, and the Chinese

University of Hong Kong: Bachelor of Social Sciences (Architectural Studies) + Master of Architecture.

In 1997, Hong Kong returned to main land China. Then, the shift began from RIBA to CAA. In the meantime, the registration of architects in Hong Kong has been administered by ARB, a statutory body formed by ten members appointed by HKIA, under the Architect Registration Ordinance. The Architect License is issued to successful applicants who have passed the HKIA Examination within 5 years with relevant educational background and work experience of 24 months.

The system of Hong Kong has close relationship to the systems of main land China and Commonwealth of Nations. Recently, it is required to correspond to the progressing internationalization of architectural education. Moreover, the introduction of 6+3+3+4 year system, 16 years of elementary, junior, high, and university education system, is scheduled in 2012. Accordingly, university education will shift from 3+2 year system to 4+2 year system. Therefore, the accredited programs will start to operate as 4+2 system soon.

Consideration on Asian Systems

In the four countries where the authors conducted on site investigation, the following three points were found common in architect licensing systems.

1. Requirements for the license are composed of 1) educational requirements, 2) requirements of internship/practical training, and 3) examination requirements.
2. Professional Degree programs are prepared with accreditation from an authorized third party in order to meet the educational requirements. These professional programs provide minimum of 5 year education.
3. The authorized accreditation/validation agencies are established specific to the field of architecture.

Several countries went through recent modifications of the systems and achieved to meet the international criteria. It is notable that the possibility 4+2 system is recognized as an alternative in different context. It is also found that architectural education in Asian countries went through rapid progress in recent years. Therefore, these common aspects and the result of improvements seem to represent a clear trend toward further moves toward a common ground in the region.

JAPANESE ACCREDITATION SYSTEM AND RECENT MODIFICATION

The discussion on establishing an accreditation system in Japan became active after the move to establish the UNESCO-UIA Validation Council for Architectural Education became apparent following the UIA world congress in Beijing 1999. There were two problems we faced in order to meet the criteria that was agreed in the UIA accord. The first one is the length of the education. The domestic

architect license in Japan requested 4 year education. The second problem was a lack of accreditation/ validation agency. The government designated numbers of universities who provided qualified education for the domestic license at that point². Therefore, no agency that provides an accreditation on architectural programs existed in Japan when the discussion started.

JABEE was established in order to review and accreditate engineering programs in 2003. Since the system was established to meet the criteria of the Washington Accord³, the main scope of its accreditation system was 4 year undergraduate programs. They started the operation for engineering programs and joined the Washington Accord in 2005. Since many departments of architecture belong to engineering related schools in Japan, it was more reasonable to utilize the existing JABEE system rather than establishing another system for accreditation of architectural programs.

Series of actions were already taken to expand the accreditation system of JABEE in order to accommodate the requirements that were set in the UNESCO-UIA recognition system. Joint accreditation system for 4-year undergraduate programs and 2-year graduate programs was developed. Since all the undergraduate programs in Japan are 4-year programs and most of the schools have 2-year graduate programs, it is reasonable to prepare a system to recognize them jointly as a 6-year program. A simulation visit of JABEE for 6-year program was conducted in Waseda University in 2005 in order to see its feasibility. Then, tentative criteria for an accreditation system for 2-year graduate programs were prepared. A trial visit of JABEE for 2-year graduate program was conducted in Chiba University in 2007.

After the official criteria for 2-year graduate program became active and the joint accreditation system was launched, JABEE visited three schools including Waseda University, Chiba University and Japan Women's University in 2008. The UNESCO-UIA Validation Council for Architectural Education visited Japan at the same time and reviewed the accreditation process of JABEE. Then, JABEE obtained a conditional recognition from UIA for its joint accreditation system for the next five years. JABEE was also requested to improve on three points under the recognition by 2011.

Following the launch of the aforementioned accreditation system in Japan, JABEE made several modifications in order to meet the requests of improvements. JABEE has revised its criteria effective in 2012 in which the system for the joint accreditation was more unified. The criteria incorporate items that are tied to the requirement for the architect license in Japan both in education and in internship. The reviewing procedure became outcome-based rather than input-based or output-based. It encourages educational programs to incorporate more project-based learning through architectural design studios. It is clearly a notable move toward a truly compatible system in the world.

EFFORTS OF MEIJI UNIVERSITY TOWARD JABEE ACCREDITATION

Meiji University was established in 1881 as the Meiji Law School. It has become one of the most prominent private universities in Tokyo, Japan and celebrated its 130th anniversary last year. The Department of Architecture was established in 1949 within the School of Engineering. The school developed and became the School of Science and Technology in 1989. The Department of Architecture has undergraduate program with 150 students per grade. It also has graduate programs, 2-year master program with 60 students per grade and 3-year doctoral program. Its undergraduate program is qualified as a required education program for Japanese Architect License.

The Department of Architecture will start a new graduate program, called "International Program in Architecture and Urban Design (I-AUD)" in 2013. It will become one of the English track graduate programs in architecture in Japan. MU currently has three campuses in and around Tokyo, and the Department of Architecture is located in Ikuta campus. I-AUD will be established in Nakano campus, MU's fourth campus in downtown Tokyo. Therefore, MU plans to start unique 4+2 education program. These programs will be accredited by JABEE's joint system in 2015 when the first graduate finishes the program.

In the process of preparation of the program, MU has revised the students' performance criteria and education curriculum based upon its aim of education in order to meet the 2012 JABEE criteria. MU also streamlined the flow of subjects and placed the studio as the spine of the curriculum especially in I-AUD program. It was a meaningful process in order to improve the education program.

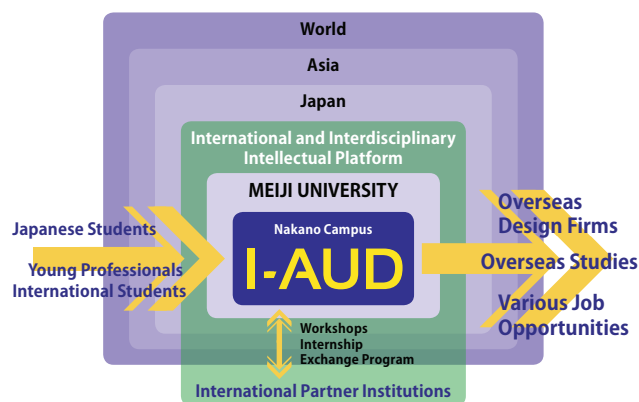


Figure 1. Concept of I-AUD program

As described above, the contextual background of Japanese education has set the 4+2 framework for JABEE accreditation. It is aimed to maximize the advantage of the framework when the curriculum of I-AUD was designed. It has one extra year compare to the 5-year

STUDY ON TRANSITION OF ACCREDITATION SYSTEM

programs that meet the minimum requirement of the UIA/UNESCO criteria. Therefore, this one-year period could be utilized for internships and/or study abroad programs. The I-AUD curriculum requires three advanced architecture and urban design studios and a master's thesis project in its 2-year program as shown in Fig. 2. The first semester and last semesters are required to be completed in MU. The second and/or third semesters could be completed in one of the partner schools abroad. It is also allowed to incorporate intensive internship programs or international workshops. MU has expanded numbers of partner universities after it has been chosen for the G30 project by the Japanese government.

Currently MU has more than 150 partner schools in 34 countries including several prominent architectural schools. The I-AUD will provide students opportunities to study across the borders of countries and assure the quality of education with JABEE accreditation that is validated by UIA/UNESCO.

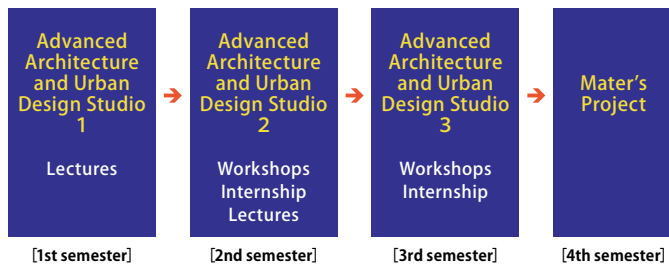


Figure 2. Basic framework of I-AUD curriculum

CONCLUSION

In this study, the authors have provided an overall perspective of the current situation and the trend in architectural education in Asia even though the detailed analysis is yet to be completed. In addition, the basic structure of Japanese accreditation system and its recent modifications were reported and the efforts of MU toward JABEE accreditation including establishment of I-AUD were described. Through the study the following points are found important;

1. The three requirements are found common for architect licenses in Asian countries. There are requirements of education, internship, and examination. Regarding the requirements for education, professional degrees with accreditation from authorized agencies started to become a common standard. Therefore, each country is recently establishing or improving the official accreditation/validation system to meet the goal of international mutual recognition.
2. Various systems exist in Asian countries that reflect the historic contextual background of each country. British and American influences are still notable in the region. A trend to establish an internationally recognizable system seems to become more dominant beyond the preexisting influences. There are various recent modifications of the systems in the rapid progress of

internationalization. Therefore, it is important to recognize the trend and seek a way of international collaboration.

3. Most of the countries have the accreditation /validation agencies that are specific to architectural education. A platform to recognize substantial equivalency of the systems among multiple countries, such as the Canberra Accord, was already established. Japan started the joint accreditation system for 4+2 programs by JABEE in 2008. JABEE revised the criteria in 2012. This revision responded to the requirements that were given by the conditional recognition by UIA. It is expected to further develop the accreditation system in the future.
4. It is well known that the educational requirement for architect license is typically 5-year B.Arch. program. However, it was found that educational programs in 4+2 system are widely accredited in various countries. Even in South Korea where many schools switched to 5-year B.Arch. programs, there is notable trend to seek the possibilities of 4+2 system as an alternative. In Japan where 4+2 systems are the common ground for the university system, it is important to establish a effective use of this system in order to obtain international recognition.
5. MU will start a new graduate program, I-AUD in 2013, and plan to obtain JABEE accreditation in 2015. It will be an English track program and provide more mobility to the students. Accreditation/validation systems that ensure the quality of education were established in order to meet the requirements for architect license. However, they function to provide portability of educational credentials and mobility for the students when a mutual platform between countries is formed. The latter function seems notable for the development of exchanges and collaboration in Asian countries.

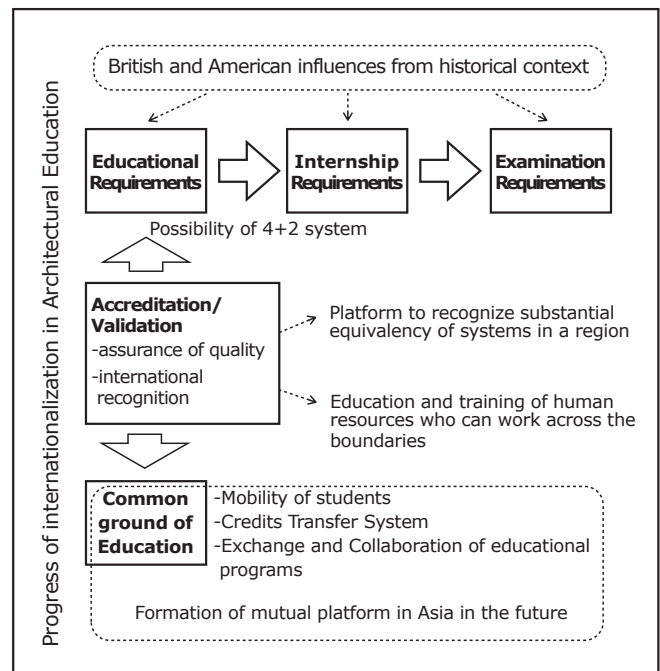


Figure 3. Summary of notable results

Even though the purpose of the study is not yet completed, this study has provided several fruitful insights regarding the licensing system, the accreditation system, and the architectural education in Japan in relation to other countries in Asia. The outline of the notable results is summarized in Fig. 3. It is important to continue and further develop this study in the next consecutive years.

ACKNOWLEDGEMENT

A part of this study is supported by Grant-in-aid from The Japan Architectural Education and Information Center (JAEIC) in 2011.

ENDNOTES

- 1 Multiple faculties of universities in South Korea whom the authors interviewed during the investigation expressed this observation.
- 2 The criteria of education requirements for architect's qualification was introduced when the architect law was revised in 2006.
- 3 The Washington Accord, signed in 1989, is an international agreement among agencies responsible for accrediting engineering degree programs.

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