

## 論文の内容の要旨

論文題目 Design Processes and Management in Architecture. Kengo Kuma & Associates: Between a Design Studio and an Architectural Enterprise

(建築における設計プロセスとマネジメントに関する研究：隈研吾事務所におけるアトリエ性と組織性の関係の考察)

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### **Background: Design Process**

Little is known about the methods employed to design a building. The public and the intellect's focus is commonly directed towards the final product. Series of negotiations, discussions and experimentation methods characterize the architectural process, influenced by procedures and systems that dictate and generate one architecture or another. This system and tangible place is the architectural office; it is the place where the design work takes place.

### **Theoretical Framework: The Architectural Practice**

This research is framed in reference to the development of the Architectural Practice throughout time. As the role of the architect has evolved throughout different civilizations, the architectural practice today finds its roots in historical models, which are identified and presented in this study. The profession was very much linked to the socio-economic needs of the society; historically it was associated with religious and political commands, and it gradually became directly influenced by the powers of the market. This topic had been discussed by many scholars from a historical (Kostof, 1977) (Frampton & Kudo, 1997) (Hitchcock, 1947) & (Kubo, 2014), sociological (Blau, 1984), psychological (Serraino, 2016), anthropological (Yaneva, 2009) and managerial (Buntrock, 2002) (Cuff, 1992) (Emmitt, Prins, & Otter, 2009) & (Gutman, 1988) points of view.

As of late 19th century, and besides small-scale offices, the practice witnessed the emergence of *bureaucratic* organized ateliers such as Burnham & Co, McKim, Meads and White later Skidmore, Owings and Merrill (SOM) Albert Khan and Nikken Sekkei (Boyle, 1977) (Roth, 1983) (Zimmerman, 2018) & (Bognar, Frampton, & Ota, 2000). These practices were characterized by large resources, division of labor and a large amount of commissions. In parallel, and during the Modernist period, the small-scale atelier evolved to formulate the model of the Genius's Design Studio: a solo visionary leading an architectural office with relatively small resources, and informal flexible processes in combination with a very specific design philosophy and aesthetical agenda derived from the Genius' ideas and vision towards architecture. Le Corbusier, Frank Lloyd Wright and Mies Van Der Rohe are among these main figures that characterized the architectural Genius. (Filler, 2007) (Kubo, 2013) & (Hitchcock, 1947) These two models —Bureaucratic and the Genius— continued to evolve in line with the socio-economic and technological

changes of the time. The Bureaucratic Model expanded to create the Architectural Enterprise. Some of these companies include Gensler, Nikken Sekkei, Kohn Pederson Fox Associates, Nihon Sekkei, HOK, Aedeas, Yamashita Sekkei and others. In parallel, the Design Studio evolved with an extensive media coverage to create the image of the *starchitect*, where the architect represented the image of a genius public figure who creates works of art through architecture. Starchitects started receiving numerous commissions from all over the world, and were thus pushed to grow their offices to include more staff members, to set-up branch offices in different locations, and to devise specific organizational systems to manage their offices. It is within this context that a *Hybrid* model was formulated, a practice between a Design Studio and an Architectural Enterprise. This applies to many contemporary practices that were founded by a solo figure but currently employ more than 50 architects. Such is the case of OMA, Foster's and Partners, I.M.Pei, Renzo Piano, Zaha Hadid Architects and others.

### **Research Case Study:**

Within this framework, this research investigates the design processes and the management procedures devised within the context of one Japanese architectural office: *Kengo Kuma & Associates (KKAA)*. Established in Tokyo before 1990, KKAA develops architecture, interior, pavilion projects, and exhibitions. Kengo Kuma's practice currently employs more than 200 architects with branch offices in France and China, working on more than 180 local and international projects in more than 25 countries (Kengo Kuma and Associates, 2017). The company quickly shifted from being a small Tokyo practice into a large design office that caters for clients both inside and outside Japan. This expansion drove the office towards a gradual shift from a Design Studio with relatively simple organizational systems into one with a more organized structure and management procedures.

### **Research Scope:**

KKAA presents an example of a Hybrid model of an architectural practice, one that is in-between a Design Studio and an Architectural Enterprise. This research aims at investigating this hypothesis within the context of the theoretical framework of the Architectural Practice. This study researches, investigates and identifies the various elements and methods that contributed to KKAA's growth during the past three decades. Based on these objectives and based on the research hypothesis, this study aims at answering the following question: What characteristics, organizational systems and theoretical frameworks define KKAA as a Design Studio or as an Architectural Enterprise?

Based on the method devised by academic scholar Clayton Cristensen, the analysis is carried out in reference to three main factors: Resources, Processes and Values. Resources are the tangible and intangible assets; Processes refer to the creative production & financial methods, and to the interaction and communication channels that dictate the company's overall decisions and strategic course; and Values lay down the company's ultimate goal in reference to its context and thus in relation to its time and location. They also define the company's ethics and level of responsibility towards its customers, its staff members and the society in which it operates in (Cristensen, 2001). Based on that, this paper is organized into six chapters. Chapter 1 —Introduction, Chapter 2 —The Architectural Practice, Chapter 3 —KKAA's Resources, Chapter 4 —KKAA's Values, Chapter 5 —KKAA's Processes and Systems, and Chapter 6 —KKAA as a Hybrid Practice.

During the period between January and August 2017, we initiated the research fieldwork at Kengo Kuma & Associates, in their headquarters in Tokyo and in one of their branch offices in Paris. We were based at a work-station inside the office taking part in a daily observation study of the office in general and a specific observation and documentation of the design process of five ongoing projects being developed by teams at KKAA. During this period, we engaged in several formal interviews and informal conversations with staff members and collaborators. In order to analyze KKAA's Resources, Values and Processes, the available data about KKAA's projects was gathered in reference to the projects' and publications' geographical reach, diversity and evolution throughout time. Diagrams I, II, and III are the consolidation of this collected data, visually translating the progress of the company throughout time.

## **Analysis and Discussion:**

In terms of Resources, KKAA moved between being a Design Studio during the 1990s and the early 2000s to becoming an Architectural Enterprise. The company metamorphosed as it expanded throughout three stages: Phase 1 – Testing Values, between the end of the 1990s and 2007, Phase 2 – Global Reach, between 2008 and 2015, and Phase 3 – Professionalism and Complexity, from 2016 until today. The growing amount of tangible and intangible resources is having a direct effect on KKAA's process, on the way it works, communicates and functions. The quantitative analysis of KKAA's Resources characterize it as an Architectural Enterprise while analyzing them qualitatively present it as a Design Studio. The Values discussed in this research refer to three headlines: Design Philosophy, Design Methods and Practical Agendas. These Values are derived from the founder's viewpoint and philosophical attitude towards how architecture is ought to be and how should architects conduct themselves in order to serve the societies they live in. This strong link with the subjectivity of the founder's —the genius'— ideals frames KKAA under the Design Studio Model, where Kengo Kuma plays the role of a leader and a visionary who provides design direction and constant feedback to younger staff members. Furthermore, KKAA's practical agendas celebrate the *atelier* culture, where everyone is invited to be a generalist —rather than a specialist— and is encouraged to take initiatives throughout the design process. On the other hand, the company's constant strive to seek large-scale complex projects, to expand its geographical reach, and to grow its internal organization fall under the ethos of the Architectural Enterprise. Based on that, and in terms of Values, the company functions as a Hybrid Model, despite the fact that it leans more towards being a Design Studio than an Enterprise.

In line with the research hypothesis, Chapter 5 brings together the Resources and the Values in the form of Processes, which once again aim at answering the research question, defining KKAA as a Hybrid Practice. The chapter structure, presenting the dual concepts that define the company, is organized under four main sections: “A Horizontal Hierarchy”, “The Genius and the Bureaucracy”, “Generalization versus Specialization” and “Experimentation versus Standardization”. These four paradoxes pinpoint the practice hybridity and fluidity as it is still growing and adapting to new changes.

## **Research Significance**

*An Architecture of Process:* Studying the process of making architecture is a study of architecture itself; it is a path that leads us to formulate a better understanding of the systems that contribute to its image, its symbolism, its aesthetic and its significance. This research aims at providing a closer look at one architectural practice in reference to its precedents and to today's practices, in the aim of understanding the design process from a managerial perspective complementing the various studies carried out in the field.

*A Japanese Hybrid Practice:* In reference to the research framework, the architectural practice currently operates within the framework of the Design Studio or the Architectural Enterprise. Both models have their variations, however the practices of large Design Studios present a merge between the genius' Design Studio and the corporate Architectural Enterprise. The practice of Kengo Kuma & Associates is a Hybrid practice that possesses large resources within a partnership system, three branch offices and five internal divisions, and it derives its Values from Kengo Kuma's extensive writings and publications. The office thus manifests notions of professionalism on one hand, and notions of artistry and creativity on the other, both exemplified in its Resources and its Processes.

*A Design Method: An Anonymous Architecture:* KKAA's design philosophy advocates for an Anti-Objective architecture that blends nature with the built environment. With its focus on materials and on avoiding massive formalistic gestures, this philosophy develops a rigorous design method, rather than resorting to a specific shape or expression. With that, KKAA celebrates the process and not the end product. Its process can thus be translated into a guideline that ultimately aims at erasing architecture and its author.

*A Model for Future Practices:* The study leads us to understand the multifaceted aspects to this practice, with all its contradictions: a Design Studio and an Architectural Enterprise, Kengo Kuma as a *starchitect* and as an anonymous author, a

technologically-savvy practice that produces a traditional architecture, and a large practice that advocates for smallness. The practice's approach to architecture embodies the full spectrum of the architectural profession, encompassing the notions of the architect as an author, the architect as a businessperson, the architect as an artist and a *starchitect*, the architect as a master craftsman and the professional architectural enterprise. Ultimately, this research aims at re-questioning the role of the architect countering the celebrated image of the Modernist architectural genius to replace it by a modest and 'erased' author as the architect of the 21st century.

Looking at all these characteristics can help inform other emerging practices. It presents an example that can be studied when dealing with the establishment of a new practice, and with the manner it grows and adapts to the demands of the market while still being faithful to the original principles set up by the office.