SANAA
DESIGN PROCESS

ESSAY FROM
AN INTERNSHIP

EXTENDED ABSTRACT

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All unreferenced images, photographs and drawings were taken or drawn by the author.
L I S T  O F  G R A P H I C A L  E L E M E N T S

Cover  Office at Tatsumi.

01  Teshima Art Museum.

02  Louvre Lens.

03  Teshima Art Museum.

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Subsequent to an internship at the Tokyo office of SANAA (Sejima And Nishizawa And Architects) carried out from September to December 2015, the present work seeks to unveil and understand the criteria and methods that have shaped the praxis of architects Kazuyo Sejima and Ryue Nishizawa. Their firm is commonly associated with the idea of a search for a delicate architecture that cancels out its own presence only to give way to other features in its surroundings, through a diverse range of mechanisms that this dissertation intends to identify through patterns in their work.

To establish the means of this investigation, the first part of the present thesis is dedicated to the research on the contextual background that has helped define SANAA, in order to identify a continuity in the ideals carried out by previous generations of architects. Further on, through bibliographic research and data acquired from the internship, and by analysing the values of traditional Japanese architecture, SANAA’s main conceptual premises are pointed out and considered through examples of projects. To illustrate this investigation, the third chapter shares a conceptual process diagram. The work is complemented by the firsthand insight of the three-month internship, which makes mention of cultural aspects of life in Japan.

In conclusion, this dissertation aims to be a tool to understand the design process of the firm SANAA based on the identification of key parameters in their methodology.
Japan’s apprentice-master culture has been for centuries a means of progress in the creative arts by being a way of passing on knowledge that cannot be learned without seeing and observing. In architecture, this relation has brought forth a generation of architects that has its origins in the work of Le Corbusier.

The shift in Japanese architecture can be traced back to the end of WWII, when the country began to recover from the economic impact of the war. Japan had the opportunity to show the world how futuristic and daring it was able to be as far as technology and construction were concerned. The fast increase in wealth gave architects a total creative liberty with no financial or planning restrictions, resulting in a plethora of bizarre architecture. The Metabolism Movement was introduced in the 1960 World Design Conference in Tokyo, and with it architecture gained a sense of renewal and regeneration, rejecting simultaneously pre conceptual ideas of the past while defending that the individual, the house and the city were all part of a single living organism. Kiyonori Kikutake, Kisho Kurokawa, Masato Ōtaka Kenzo Tange and Fumihiko Maki, all renowned Japanese architects, were responsible for implementing this ideology.

By late 1991, the economy began to decline, a reality which would go on for more than ten years, becoming known to many as the Lost Decade. In this adverse context, ambition had to be scaled down, and maturity replaced the excess. Inevitably architecture had become an answer for actual problems, and architecture experimentation per se became something unaffordable and unrealistic. As a result, design moved away from the
provocative and hysterical postmodernism and architecture returned to a simpler, more transparent style of modernism.

Generations

One of the most influential personalities in the course of 20th century architecture was the Swiss architect Le Corbusier. Founder of the Modernism Movement, Le Corbusier’s impact in Japan was long reaching with a young generation of architects theorising new responses to architectural questions. After his death in 1965, regarding the effects of chaotic Japanese urbanisation, his work began to be looked upon in a more critical manner. This discussion resulted in the desire to think alternative solutions for urban conditions and contributed to a further shift in the direction of architecture in Japan.

Kazuo Shinohara (1926-2006) belonged to that group of architects that began to reject the Western influence. His ideas were immortalised by an offspring of young architects known as the “Shinohara School”, which included Toyo Ito, an architect who would himself later lead a generation of innovative visionaries. Having built around thirty residential houses during his life in the scenario of a chaotic Tokyo, he believed that the main focus in architecture was not functional efficiency or beauty, but rather the capturing of a spiritual aspect within urban chaos.

Shinohara’s work would prepare the path for the rise of new architects that would embrace architecture and the urban context in a new manner. Among them, we find Toyo Ito and Yoshiharu Tsukamoto and Momoyo Kaijima from the renowned Atelier Bow Wow (these two who were students of Kazunari Sakamoto, who was a direct follower of Shinohara’s).

Three new approaches

In this chapter, three of the most influential approaches to architecture are highlighted in order to demonstrate how Japanese cities, over the past 25 years, have become a permanent yard for experimentation.

1. Toyo Ito

Toyo Ito’s legacy is based on the idea of merging new technologies, urban life and nature. He broke the standard system of construction and began his new style, one which joins together structure and design, something that will allow him and future architects to overcome new limits in design.
His Sendai Library (completed in 2001) was the pioneer in integrating structure in the form of architecture. By calculating the dimensions of these tubes, Toyo Ito could release forces in other parts of the building, challenging the former system of construction called dominio, which consisted in a matrix of concrete pillars and beams that distributed forces equally. Sendai Library’s lightness achieved through engineering was the key point to a new stage of architecture where architects were no longer dependent of engineering limitations and explored a different, freer way of constructing.

1. Bow Wow Generation

The post Bubble situation sent the Japanese to a period of introspection that gave birth to the Bow Wow Generation1, term attributed to the young architects, most born in the sixties, that found themselves within the post bubble situation with no commissions, forced to develop new design tactics for the changing Tokyo landscape. The ateliers of this generation are linked to an ideology focused on the shifting emphasis of Japanese architectural discourse from larger, more utopian scale to a more practical and individual examination.

This expression was given as a tribute to Bow Wow Atelier, a research and design practice founded by Yoshiharu Tsukamoto and Momoyo Kaijima in 1992, who initiated their career by creating empirical analysis of the urban conditions around them.

The Bow Wow atelier and their contemporaries were part of a period that saw a proliferation of postwar collective housing called the danchi. Instead of critiquing these aspects of the modern city, their attitude was to make publications with ideas on how to renovate the housing blocks, trying to ensure that they could last be adapted for the future.

1. Experimenting with houses: Tezuka Architects

Throughout their history, the Japanese have given preference to the plot of land system, partly because Japan’s nature of earthquakes doesn’t leave much freedom for building in height. However, in the post-bubble scenario and with demographic pressure, these lots resulted in tighter areas.

The Japanese, in general, were very keen on having their own allotment, so much that they developed mechanisms allowing them to live in such tiny lots. Aware that Japan is a society filled with rules and legislation, with strict requirements from its inhabitants, people with empty lots began to face architecture as the only means that could give them the self expression they lacked in other areas of their lives. As a result tailor made housing started

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1 Term coined by critic and publisher of Telescope Magazine Akira Suzuki
gaining popularity and created the perfect context for visionary young architects filled with ideas from travels and academic work to start their careers.

The house became, for these reasons, where all the new design experimentations will be directed towards from the nineties onward. One architecture firm that explored this field is the one founded by the couple Takahuru and Yui Tezuka in 1994 under the name of Tezuka Architects. They focus their housing design in the analysis of the inhabitant’s daily activities and the ways of stimulating those activities in a new architecture. The concept is a very important tool that is drawn from the user’s daily life, and is used as a simple and direct answer for those behaviours.

At the individual level, architects have had to face a new type of people that started towards the end of the XX century. The working woman who wants to be single or the man who isolates from society playing video-games in his rooms (hikikomori syndrome). These social problems led architects to develop what they called the "communication plan".

Towards lightness for nothingness

The chaotic scenario of the 20th century, with the demographic pressure in the big cities of Japan, resulted in urban landscapes with low quality of life, claustrophobic and with a strong impression of dirtiness. Thus, it triggered a reaction to draw spaces that would captivate the concepts of cleanliness and emptiness.

When looking for cleanliness, the use of white could be considered as the immediate response to it, but other elements as curvy lines (that break down the rigidity) and translucent materials also give spaces the sensation of a purer environment, much like the veil of a bride. When looking for emptiness, the idea is to get an outcome in new built space as if no building had been built, and instead nature is given back to that space. The world is deconstructed towards a purer one, the nothingness in architecture. Through the years, Japanese would start to use diverse techniques that will become the basis for a new light architecture.

While making space less complex, the Japanese redimensioned architecture to a more human reality. Nothingness is a critique of the overload of elements that provoke an unsustainable visual noise in everyday life. This Nothingness that the Japanese pursue cleans out all the things that might distract the user from the essence of space. It is an architecture of subtraction and reduction in order to give back the true beauty of the environment.
The chapter Concept is aimed to identify the common ideas and principles in the works of Sejima and Nishizawa. It begins with a chapter introducing the architects, and separates the conceptual ideas in two parts. The first, which is named atmospheres, deepens the concepts of time (timeless space), infinity (endless space), and relations (relations in space). The second chapter identifies a general concept of clarity in design that defines the work of SANAA.

**The architects**

After surveying the situation of the second half of the 20th century in Japanese architecture, with its remarkable group of personalities who shaped contemporary architecture, it is easy to connect the dots to find the influences of Le Corbusier, Shinohara or Toyo Ito in the work of SANAA. Both Kazuyo Sejima and Ryue Nishizawa have their own office, whilst simultaneously working together as SANAA in larger commissions. Their work is based on rigorous investigation guided by strong and clear concepts. They have explored the use of white in materials, experimented with curved walls and floors and challenged conventional principles in architecture.

**Precedents: learning from the Japanese house**

In this part, elements in the traditional Japanese house are pointed out and related to the architecture of SANAA in order to understand the influence their Japanese roots have had on their work.
The Japanese principle of Wabi-Sabi is about an acceptance of transience, the imperfections and the cycles of nature. The approach is about finding beauty in the simple, natural, authentic and imperfect. The aesthetic creates pure and minimalist outcomes. The values of Japanese architecture are pitched towards an aesthetic dimension, which cannot be tangibly specified. Japanese have learned to value the changes in the atmosphere in the surroundings, and search to promote the continuity of nature and its beauty to the inside of the inhabited space.

In SANAA’s architecture we find a number of elements that can only be experienced and are otherwise impossible to grasp. Their projects, like Japanese traditions, adapt to time and events and are eternal. They aspire in creating an atmosphere or a landscape for people, and have since the beginning of their careers focused on the experience of space and how this can achieve a certain quality of transcendence.

In the process of research, three main ideas were identified in their work: timeless spaces, endless spaces and relation spaces. The first is related to a certain idea of flexibility in space. Architecture, in the design of Sejima and Nishizawa, is thought out to be a background for people and, as such, must offer a wide range of possibilities and functions. Projects are ambiguous and are designed with little amount of elements that can compromise it to a certain function. They avoid extensive planning whilst projecting a building with the purpose of giving the users the freedom to inhabit the space at their will.

Endless spaces are associated with the idea of infinity. Sejima and Nishizawa in principle search to blur any idea of limits of the building, using mechanisms that can allow them to create spaces that give the feeling of extending towards the horizon. Thin vertical elements and low ceilings are only some of the methods used to achieve the horizontal architecture that is characteristic of Mies van der Rohe.

Finally, the relations of space is one of their most recurrent themes. The idea that architecture should promote encounters and interactions with people and spaces.
Clarity

SANAA’s work is iconic for its apparent simplicity and formal austerity. It can be associated quite often to an essential minimalism, but their architecture goes beyond the intention of simply “cleaning” all unnecessary elements to create an architecture that is simple. What distinguishes Sejima and Nishizawa from their modernist influences is their intention of providing clarity in the concept rather than the materials, through skimming down the ideas to the essential qualities of the design. Nishizawa explains this in an interview for the El Croquis:

“Usually, transparency and lightness, in terms of mass, are not the ultimate goals. What we are trying to do is to organise the components in a clear way.”

Transparency in SANAA’s architecture is not limited to a visual clarity, but assumes a conceptual clarity, and it is this quest for clarity that leads them to project through simple and thought out diagrams in which they only draw lines that outline the spaces and define a complete plan. A clarity that remains intact from the project’s conception to our experiencing of the space.

In this chapter, the concepts of lightness, transparency and translucency are analysed as means to achieve this clarity of concept.

3

Process

The dynamic evolution of a plan

During the internship at SANAA, a general design process was identified for most projects. The steps laid out are not all carried out in all projects, but in general the idea of process follows the following methodology. At first, the architects face the site area and are given a proposal of programs by the client. Given that, SANAA architects generally fit them into the site plan to gain an idea of the areas of circulation and utility. Then, the programs are arranged in an architectonic logic; the architects release the program area’s rigidness and creates curved lines, leaving the circulation in free plan. After that, light is given consideration and courtyards are open. The floor is warped to give the spaces different
character. In the end of the process, the example chosen was the Rolex Learning Center in Lausanne.

**Models and diagrams**

For SANAA workers, the process of design in architecture involves constant studies, which includes sketched plans, models, visits on site and doodles. It is by this method that one can encounter problems and difficulties and overcome architectural and spatial challenges.

**INTERNSHIP**

The experience gained in the internship of three months in Tokyo, starting September 2015, is shared through a personal writing. The experience details the beginning of the integration in the office’s routines and intense schedules and reveals a process of adaptation and learning, which was completed with the interactions with the architects. This chapter gives an insight into the normal life of a worker at SANAA, providing real data in first person. The three months involved the participation in a number of projects, the most relevant of which are specified, which gave me the opportunity to be part of different phases in different projects, including conceptual, schematic, detailed and construction design, modelling decisions and so on. The internship provided the possibility to acquire methods and techniques that could further be transmitted in this dissertation. The last chapter is devoted to a purely personal writing of the three-month internship experience, and interaction with the architects, it was, from the beginning, always accompanied by my supervisor who has lived in Japan for many years.