

琉球大学学術リポジトリ

開発途上国の建築生産における現代建築の適応に関する研究

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Preface

Accompanied by the rapid change of the society like the IT revolution and the spread of world standards, Asian architectural world faces more complicated problems: how they can introduce contemporary architectural style based on local construction technology which have many handicaps compared with the West and also how they can design their cultural thoughts which differ from the West. As long as the role of architecture is esteemed to be significant in the culture of the society, the architecture that is merely copied from the West is not necessarily thought to be a discernible solution for the development of the culture.

It has been a growing concern for authors for long time that how modern architecture in the tropics can develop its design in the global age remaining its identity in design. Okinawa, where two of three authors' university is, has experienced dramatic social change since the end of WW2 till now and it is same in the architectural world. Also the Philippine, where the other author lives in, has had the similar experience in architectural design in terms of modernization. Though Okinawa and the Philippines are different in the scale, there are some similarities such as climatic condition, American influence both on society and architecture, the exchange of people for long time, and so on. Then authors conceived to investigate the process of adaptation of the tropical modern architecture as the common research study with a variety of architectural activities. It was fortunate for authors to get a chance to collaborate the study of tropical modern architecture in the Philippines with the Grant –in-Aid for Scientific Research by Japan Society for the Promotion of Science for 3 years (1998-2000).

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Introduction

Aim of Study

The modern architecture, originally appeared in the West, has been widely introduced in the developing areas after W.W.2. The International Style was the typical of the modern architecture featuring rational design approaches for the modern society of the world. One of the main reasons why the style was introduced to the developing areas so rapidly was that the style was thought to be the symbol or the hallmark of progress in the areas. As a result, such architecture can be seen ubiquitously in the developing areas today. But at the same time the architectural phenomena has accompanied by some problems: how they can be produced in the local conditions which differ considerably from the West, and how they can express or pay attention to their own cultural background in their architecture.

The aim of this research paper is to investigate these problems and also to provide a scope for the development of the non-western architecture with the concept of 'architectural adaptation'. In terms of the concept, there is few academic research in the field of architectural history and design, for it has been considered that academic value is in original design not in copied design. Though such way of thinking is dominant in the West, it may be also valuable to find out the facts that architecture, based on the local conditions, has its own variety of characteristics inspired by other world's architecture. Including negative aspects of the adaptation, it deserves research study to recognize their effort to overcome the new wave with their trials and errors.

Method of Study

The research work provides three major points of view to try to analyze the substance of the architectural adaptation: climate, technology and culture. These three view-points are important to understand the difference of the architectural backgrounds compared with the West. Firstly, the tropical climate has strong sunshine, high humidity, heavy rain, strong wind, termite attack and so on. Although fully equipped building like a spaceship can stand in the severe climatic conditions, it may be doubtful for architects to adopt the machine as a daily life environment. Technology means architectural production system, consisting of construction system, material and engineers, which generally follows that of the West. The developing world always faces the difficulty:

how to produce new type of buildings with conventional system, sometimes with the need of importing factors directly. And finally, the culture is the most important aspect of the architectural adaptation as far as the architecture is thought to be the product of its culture.

The research area was selected from the Philippines, as a case study, that has a long history of the Western influence, yet they have their own characteristic cultural heritage. The Philippines has a history of the colony of Spain for more than 3 centuries and of the U.S.A. in the first half of the 20th century, and has been influenced strongly by the U.S.A. till now. It may be argued that the country is not the typical of the non-Western countries, but it may be admitted that the Philippines' architecture shows one of the typical processes of the architectural adaptation being influenced by the West. And the research work has been done mostly in the metro Manila and its suburbs, for most major works are concentrated in these areas as long as the modern architecture of the Philippines is concerned.

Because of the considerable lack of relevant primary research materials, such as architectural publications which contain basic architectural data, research papers, industrial statistical reports and so on, excepting historical study on the modern architecture. The research has been accompanied by the difficulty to get such data originally, even architectural drawings of major works. As the consequence, the report is based on numerous number of interviews to related persons directly and also on many data originally collected.

Structure of Study

This research paper consists of 6 chapters , each chapter has specific aspect of the adaptation of the Philippines modern architecture respectively. Chapter 1 overviews the transition of architectural styles influenced by the U.S.A. dominantly for about a century with four specific eras. Chapter 2 explains architectural adaptation to the climatic conditions of the Philippines historically since pre-modern era to contemporary stage. Chapter 3 describes technical adaptation of the architecture referring to construction method and material which were introduced from the U.S.A. originally and have diffused widely in the country. Chapter 4 refers cultural adaptation accompanied by several major cultural categories in order to observe the architectural phenomena as

an aspect of whole contemporary cultural movement. Chapter 5 discusses on the activities of major leading architects explaining how they understood the problems and designed the works. Chapter 6 leads to the conclusions of the research bringing up further problems and proposals.

Chapter 1 Transition of Architectural Movements

1-1. Introduction

Architecture in the Philippines has been formally practiced since the arrival of the Americans at the turn of the century. Prior to that, architecture fell primarily on the shoulders of master carpenters. These master builders led a team of carpenters, masons, tinsmiths and laborers in executing their own designs. Thus, buildings were seen not as products of a single man but as a concerted effort of all tradesmen. It was only upon the arrival of the scholars sent to study in Europe that the professional practice of architecture took root.

Philippine architecture was first officially and objectively recognized with the arrival of the Americans. Daniel Burnham, an architect and an envoy sent by the U.S. to recommend urban design directions for Manila, advocated to preserve the architectural character he found in Manila and employ its endearing elements in the civic buildings.

According to Del Castillo, the story of Philippine architecture in the 20th century may be likened to a bud. When the country is ready to deal Spain a final blow to gain its freedom, a new conqueror takes over in the guise of a collaborator the U.S.. So it is with Philippine architecture. Beginning with the turn of the century, Philippine architecture has not been given the chance to prosper or develop into full bloom. Dell Castillo expounds on this through an explanation of architectural trends that took place in the Philippines in the succeeding sections. A chart on page 13 is provided to show the chronological order of these events.

1-2. Turn of the century

Political change from Spain to the U.S., Filipinos awoke to find the former conquerors gone but replaced by new ones. Whereas Spain ruled the country through the pulpit and its churches, the U.S. meant to rule through schools and civic buildings.

The shift was more evident in the buildings and infrastructure built. From churches and monasteries, the U.S. prescribed schools, town halls, hospitals and the development of new capital cities to project the image of order and stability.

Daniel Burnham was persuaded by Philippine Commission member William Cameron Forbes to accept the job of improving the city of Manila according to western standards. The City Beautiful movement was regarded as an offshoot of imperial Baroque planning, where public buildings were made focal points of grand avenues and park systems. Housing, culture and social concerns were not given much importance. The city was considered a showcase of the elite and was meant to summon a sense of pride and accomplishment in its citizens. What was not expressly conveyed was that the U.S. sought to make the Philippines and its citizens an Asian version of America.

In 1904, Burnham outlined his plans for Manila and a summer capital in Baguio City along the same lines of Chicago, San Francisco and Washington, D.C.. The design done was more aimed at a "visually satisfying environment" rather than a complex one taking into consideration other urban provisions, and the increasing role and prominence of Manila as a capital city. Nevertheless, this move set the tone for the complete facelift Manila was to have with Burnham at the helm. Burnham's recruitment of William Parsons further prefixed the architectural style to which Manila was to be made after.

Residential architecture, however, was to remain untouched for the first few years as the Americans were quite focused on civic architecture.

1-3. First 40 Years

1-3-1 Neo-Classicism and Beaux Arts

Parsons was able to develop a unique architecture patterned after his Neo-Classic architecture models yet blended with the proper Oriental, tropical and earthquake-proof

features. Parsons' attempts are considered "a first in Regionalism in architecture" . Whereas Neo-Classicism in the West featured historical icons mainly derived from Classic Architecture, Parson's schemes were given a regional flavor by the employment of sun-shading and cross-ventilation devices such as huge overhangs, deep-set porches, and wide, operable windows. His important works are the Philippine General Hospital, the Philippine Normal School, the Army & Navy Club and the Manila Hotel. Common to these buildings are deep porches with arches and tiled roofs, a reinterpretation of Spanish architectural features, and plain, pastel-colored concrete walls.

The first Filipino architects were recognized during this period as the first batch of American-trained architects began arriving from the U.S.. Among these first Filipino American-trained architects were Carlos Barretto, Antonio Toledo, Tomas Mapua and Juan Arellano. All four worked in collaboration with Parsons and other American consultants at the Division of Architecture. The most prominent of the group was Arellano. Arellano designed the Legislative Building in the Beaux-Arts tradition. This move was a negation of the direction set by Parsons and his master, Daniel Burnham, who prescribed simple, straightforward forms for Manila's buildings. The Filipino architects at that time, largely influenced by the return to historicism and eclecticism in America, felt that Manila deserved a more elaborate architecture befitting a capital city .

Arellano's Manila Post Office Building at the Liwasang Bonifacio is considered one of his best works. It features a colonade of tall Ionic columns and a rectangular plan with rounded or semi-circular ends. The intention to design in this style may be seen as a fitting termination to Taft Avenue, as again prescribed by Burnham's plan. Late in the 1930's after shifting his design bias toward Art Deco, returned to his Beaux-Arts style with the design of the new buildings of the University of the Philippines. The design for the new campus followed the axial pattern of the City Beautiful Movement.

1-3-2. Art Nouveau and Art Deco

The 1925 Exposition des Arts Decoratifs in Paris led to the development of Art Deco in architecture, which quickly spread to America. Art Deco may be seen as a

further development of Art Nouveau, the first breakaway attempt from the Beaux-Arts tradition. This time, the fascination of America with Art Deco and Art Nouveau influenced Arellano in his designs for the Metropolitan Theater.

The Metropolitan Museum features decorations culled from stylized versions of ethnic art and native flora. The main façade has a tall semi-circular segmented arch with tiled mosaics and grill designs in between. Arellano collaborated with artist Isabelo Tampingco in conceptualizing the motifs and decorations for the building's façade. Arellano also designed the nearby Jones Bridge leading to Quiapo again in the Art Deco tradition. The Rizal Memorial Stadium is another of Arellano's known ventures with the Art Deco style. The entrance façade has a huge rectangular mosaic design flanked by two sweeping curved walls.

The Art Nouveau and Art Deco traditions were to be carried on by the second-generation architects like Pablo Antonio, Fernando Ocampo and Juan Nakpil.

1-3-3. Residential Architecture

Residential architecture in the meantime remained virtually unchanged. Spanish themes still persisted in the bahay na bato and Antillan houses. It was in fact this architecture that inspired the American-built civic buildings. It remained the most viable solution to counter the tropical heat and sun. Even with the introduction of reinforced concrete, the basic form remained, a ground floor used mainly for storage, and later for servants' quarters and a second floor holding the living areas. The Americans did introduce a new residential form, the chalet, but was generally patterned after the bahay na bato.

1-3-4. International Style

Another reaction against the Neo-Classic and Beaux-Arts tradition was the

development of Rationalism and the International Style by European. This new tradition was a direct expression of the newfound industrial capabilities of developed countries. With the spread of Functionalism and the International Style to America, so did it quickly manifest itself in the Philippines.

The sudden "transparency" look of buildings owed is a direct influence of the International Style. The strong drive to produce internationally acceptable buildings prompted architects like Juan Nakpil, Pablo Antonio and Andres Luna de San Pedro to "showcase the triumph of technology for architecture". The Manila Jockey Club & the National Press Club clearly illustrate their affinity to Gropius' Werkbund Exhibition Office Building. However, in later developments, the Philippine tropical heat had to be contended with and Le Corbusier's solution for Brazil gave the appropriate response. The use of sun breakers provided a new architectural feature that Filipino architects could toy with. The varied forms and uses of sun breakers, not to mention the proliferation of reinforced concrete unit "decorative blocks" that can be found in almost any street side, attest to the popularity of its use.

1-4. War Years

From 1941 to 1945, Japan occupied the Philippines. Its "Asia for Asiatics" battlecry found its expression in the cultural and artistic venues often sponsored or encouraged. Artists like Lucrecia Kasilag, Eulogio Rodriguez, and Antonio Molina were able to produce successful symphonies and concerts that featured distinctly Filipino themes and ideals.

This brief incursion paved the way for a renewed interest and search for a truly Filipino expression in the other arts, architecture included.

1-5. Post War Years

1-5-1. Functionalism as Style

The International Style continued where it left off. However, not much thought went into the use of the Functionalist style as it has been applied in Europe, its origin. Buildings built in this style clearly showed an architectural veneer approach to design where the buildings outwardly communicated its "international" flavor by using stylistically-correct elements such as glass walls, sun breakers, and plain cubic forms.

1-5-2. Dawning of a Promise

The 1950's were considered a starting point or a new dawn for Philippine architecture. For one, it was during this period that the law creating the profession of architecture was passed. It defines how architecture may be practiced in the country and how the State shall regulate its practitioners.

The 1950's are also when the idealists heralded a new era in Philippine architecture through a circular, saucer-shaped chapel. The Architect was Leandro V. Locsin. Locsin's entry paved the way for new forms and new ideas about Philippine architecture. Although Locsin rarely wrote down his thoughts and beliefs, his works opened new avenues for aspiring architects to explore. His interpretation of indigenous architecture offered a genuine and promising response that sprung out of a critical approach to Philippine architecture.

Locsin's Cultural Center of the Philippines is considered his finest distillation of the essence of Philippine architecture. His abstraction of forms work well within the era of Modernism and yet transcends being dated to a certain era or style. The singular, horizontal massive rectangular box "floating" above a podium is derived from the qualities of the nipa hut: massive yet light. This seeming paradox is again used in the nearby Philippine International Convention Center through the use of huge horizontal concrete slabs made to float on thin walls of glass.

1-6. Last 30 Years

1-6-1. Globalization

The increasing openness of the country's economy to global trade has also brought its set of woes to Philippine architecture. The drive of big business to remain competitive and internationally acceptable has allowed a proliferation of buildings designed by foreigners. These buildings have become also increasingly devoid of cultural identity, as some nationalist-architects would often point out. However, another school of thought supports the idea of foreign design influx to the country as this could further push the locals into improving their own craft and thus remain competitive. Indeed, the debate on the virtues and vices of globalization and a homogenous culture still rages on even in the field of architecture.

1-6-2. Return to Vernacular Form

A distinct response to this globalization of architecture is the ethnically thematic designs largely promoted by Francisco Bobby Mañosa. His early works show a very strong alliance to ethnic and vernacular forms & motifs and indigenous materials. The Coconut Palace is almost entirely made of coconut. What is dissapointing is that the coconut trunks used do not provide real structural support but merely serve as wrappings around reinforced concrete columns and beams.

The San Miguel Corporation Headquarters Building remains Mañosa's best achievements and is an exception of his previous works. Together with his architect brothers, Manuel and Jose, Mañosa created a terraced garden of a building, mimicking the old Banaue Rice Terraces.

1-6-3. Romantic Pragmatism

Manahan, offers a different view of Philippine architecture, especially as it is practiced from the 1980's to the present. In defining his view, tradition was still used as mediator between Architect and the public, the architecture responded to the exigencies of the program and the site pragmatically. This definition of Romantic Pragmatism thus seems to encompass the advocacies of Rationalism, Functionalism, Organic

Architecture and even Post Modernism. It therefore seems to propose that Philippine architecture has found a way of forging these different ideologies into a contradiction-free ideology.

A critical second look at this definition and its manifestations seems to be in order as Manahan may have rendered a parallelism between recent Philippine architecture and the penchant of the Filipino to adapt amidst contradicting situations.

William Coscolluela's Twin Towers in Makati, Antonios Sindiong's Ritz Towers, Rogelio Villarosa's King's Court, PROS' Pag-asa Bliss Housing and Nestor David's PNB Branch Buildings all seem to fit the bill of Romantic Pragmatism. Their facades employ popular icons such as steep roofs, arches, and stylized ethnic motifs yet respond to a program pragmatically.

1-7. Prospect

Globalization and the influx of foreign architects in recent years have led many to question the validity of designs and the competitiveness of local architects. Indeed, with the dominant influence of mass media, Filipinos have been exposed to a variety of new ideas that have evolved in America and Europe. The aftermath of Modernism's demise has led to the proliferation of styles and theories. Post Modernism is basically a return to the Classics even though in an iconoclastic way. Late Modernism and Neo Modernism have continued the traditions of Modernism in the employment of technology as expression of structure although with variations of rationalizations between the two.

In the Philippines, the buildings done in these post-Modernism styles have remained just that styles. There are very few attempts at understanding the essences of each new movement. There is an attempt of mimicking facades and mannerisms. Thus we see volumes or partial volumes twisted off an axis but only exhibited on one façade; or brilliantly colored, playful volumes that come across as shallow and uninspired.

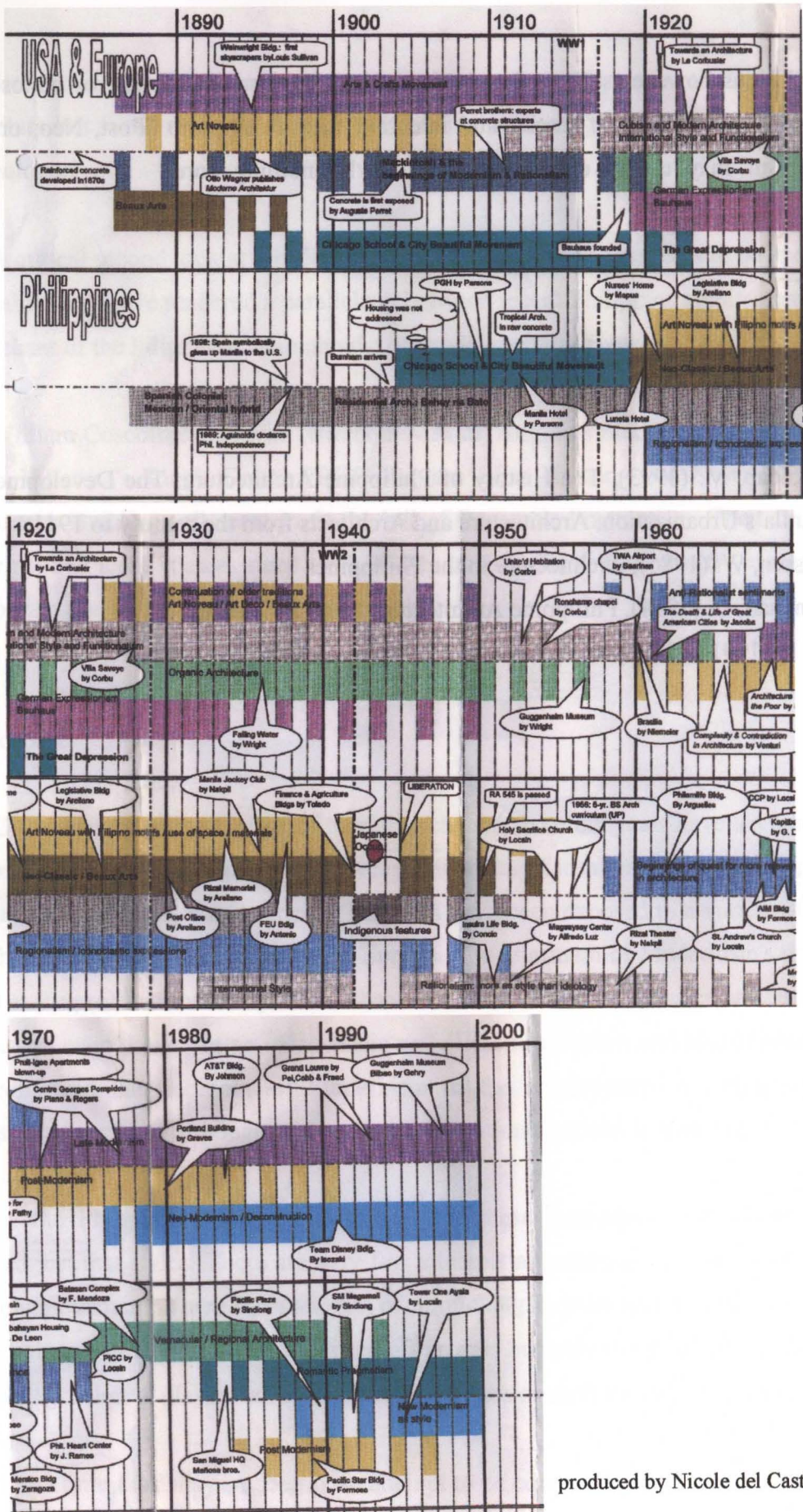
This current fad may be seen as an attempt to be competitive and instantly famous.

Their designs however still need to be backed up by a solid rationale or philosophy. Without this backbone of reason and intention their forays into "Post, Neo, or Late Modernism" may just end up being cloth-like styles, nothing more.

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Table 1-1 Transition of Architectural Movements, U.S. , Europe, and Philippines



produced by Nicole del Castillo



Fig.1-1 Metropolitan Theater, Arellano, 1931



Fig.1-2 Cultural Center of the Philippines, Locom, 1969



Fig1-.3 San Miguel Corporation Headquarters, Mañosa, 1984