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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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Chapter 5 Filipino Style

5-1 Quest for Filipino Style

The Philippine modern architecture has been strongly influenced by that of the American and also it can be seen in the contemporary main stream of the Philippines' architectural scene. This phenomenon may well explain the cliché: architecture as the symbol of progress. Most owners tend to express their success in their buildings that have some relation to the progressive architecture in the America in terms of the expression. As a result, many cities were crowded with buildings that were direct copies of buildings in New York or Chicago. It is still rather difficult for architects without strong intention and talent to design their buildings in other way, especially with a domestic touch.

Quest for Filipino style has been argued since the 1950s in response to the American strong influence along with other cultural fields mentioned in the previous chapter. The American modern architecture featured in the so-called "International Style" could not have room for domestic expression. In the late '60s and the '70s it aroused a world-wide wave of questing for regionalism in the modern design.

Except for tourism companies, some of the major supports for developing the Filipino style has been the government and public organizations that has the strong desire of political and economic independence from the U.A.S., though the actual situation was far from the hope at the time especially in the '50s. From the '60s onwards, some important architectures were built by the government to express the Filipino style such as Cultural Center of the Philippines (CCP)(Fig.5-1), Philippine International Convention Center (PICC)(Fig.5-2) both by Leandro V. Ilocsin (1928-1994) and Tahanang Pilipino(Fig.5-3) by Francisco T. Manosa (aka. Bobby Manosa)(1931-). Both of them have been the leading architects in terms of the Filipino style and at the same time been influential in the architectural society.

As for the domestic touch in the modern architecture before W.W. II, there were some examples but the design was confined to the details or parts of the whole. The Metropolitan Theater designed by Juan M. Arellano in 1931 is a good example. Arellano who was a talented architect and also an artist of painting designed the theater in remarkable Art Deco style that was intended to express the Filipino touch. In spite of many decorative patterns in the surfaces of the walls and the windows, the Art Deco is still dominant in the style of the architecture.

In the '50s there was tropical modern architecture, which was different from the occidental or American modern architecture, in other areas of the world such as Africa and Latin America. The tropical modern architecture is a kind of adaptation to the tropical conditions especially to the climate. It is featured in characteristic solar control devices like sun-shade that is ubiquitous in the tropics and has little domestic touch in design among the tropical areas. It is important to distinguish the Filipino style from the tropical modern architecture for the sake of understanding the meaning of the quest for the Filipino style that contains the desire to express the identity of the Philippines.

5-2 Traditional Model

In terms of the reference of the traditional architecture for the most Filipino architects, there are two distinctive models: bahay kubo(Fig.5-4) and bahay na bato(Fig.5-5). Even major modernism architects like Locsin and Manosa have always referred to the significance of the models as the traditional architectural heritage of the Philippines. The bahay kubo is the most indigenous domestic house and the bahay na bato, appeared in the 19th century among wealthy people, is the product of interchange between the Filipino and the Spanish for three centuries.

The bahay kubo is featured in a hut on stilts like a “floating mass” resembling to the traditional Malaysian huts and to other tropical huts in the South-east Asia. The Tagalog word “bahay” means a house and “kubo” derived from the Spanish word “cubo” as cube in English. The main space is on the raised floor, composed of two or several rooms according to its scale. The hut is covered with the local materials or

products such as wood, bamboo, nipa, grass, leaves and so on and has advantages to moisture prevention, mosquito attack, sudden flood caused by tropical heavy rain. The wall is covered with large openings and the floor is slatted which enable affluent ventilation inside. And more, its simple and light structure enables move by a group of people to somewhere residents need. The construction of bahay kubo is totally based on the local needs and conditions, and there is real and strong domestic touch in its appearance, which attracts modern architects' attention.

The bahay na bato means "a house of stone" that refers to a house composed of stone walled ground floor and wood structured upper floor. It is almost the same process as the bungalow in India by the English that the Spanish developed the bahay na bato. When the Spanish first arrived in the Manila, they built their houses in the local manner. But after several fires, they brought stone structured buildings of their own country such as churches, government facilities, houses and so on, many of them suffered from earthquake damages, sometimes collapsed entirely. Then they tried to adapt their buildings to the natural conditions of the Philippines. Especially for the house, it was needed to secure thermal comfort as well as structural stability.

The composite structure has an advantage to the earthquake because of the light structure of the upper floor. The living quarter is on the upper floor containing large "sala" that is the main central space of the house. And the ground floor is usually used for storage or other working space. And the upper wooden structure has also an advantage to the ventilation for inside space with large openings(FIG.5-6). The opening is usually composed of two parts: the upper part is so called windows with capiz shells to take sun light into rooms and the lower part, which is under the windowsills reaching to the floor level, is called "ventanillas" that means ventilation slits with slide panels. This composite opening is quite unique to the Philippine domestic house.

Careful design for the ventilation inside space is not only seen in the openings but also in partitions called "calado" (Fig.5-7) that means wooden fretwork panels, just like "ranma" of Japanese traditional houses. The calado that is inserted between ceiling and door accelerates cross-ventilation well. Sometimes it can be seen that the wooden tracery is made with well-trained elaborated workmanship like the work of Spanish

baroque.

5-3 Reference to Traditional Methods

Since the early '60s, several influential works adopting traditional methods have been designed mostly in the field of residential facility that needs comfort for living with natural ventilation throughout interior and the control of sunlight. As mentioned previously in 5-2, the calado and the ventanilla are the typical references among Filipino modern architects.

Leandro V. Locsin designed many residences and hotels adopting these traditional methods. Though he designed a surprisingly modern architecture: the Chapel of the Holy Sacrifice with RC shell construction in 1955, his interest was always in the contemporary Filipino style. His interest on the Filipino culture is not only in architecture but also in various kinds of field especially in the ceramics. He is famous for his collection of old ceramics and more wrote a book "Oriental Ceramics discovered in the Philippines" with his wife Yulo in 1967. With his deep understanding of traditional culture and his sophisticated sense of design, he synthesized the traditional idioms into modern architectural idioms.

His most important work as far as residence is concerned may be his own house(Fig.5-8) completed in 1963. The house is featured by spacious interior with trellis partitions (calado). Also in the renovation design of the Manila Hotel(Fig.5-9) that is one of most prestigious old hotels in Manila, he designed fine calado in the reception hall so as to retain the atmosphere of the traditional Filipino style. It might be something new at the time for modern architects to use calado as a partition that is see-through because space surrounded by calados is not rigid but is rather fluid and this characteristic may be related to that of modern sense of space.

Bobby Manosa is also an important figure in terms of the reference to the traditional method. Tahanang Pilipino (Coconut Palace)(Fig.5-3) completed in 1980 is a fine example that has ventanillas in the walls. The palace was designed as a guest house

commissioned by the government for foreign performing artists. It is easy to understand that the client needed something Filipino in its expression and Manosa responded to the need with traditional methods adapting to modern design. The ventanilla allows ample ventilation according to the control of the openings following the change of the weather. The ventanilla is a kind of device, that controls the condition of interior environment, and the technical design is easy to adapt to the need of modern design.

He also tried more modernized version of the ventanilla for high-rise building of his office(Fig.5-10). The invention of his new ventanilla can be seen in the opening system that allows natural ventilation even at the heavy rain by recessing the lower part of the opening. It may be difficult to relate these old and new openings without the knowledge of ventanilla, but it is clear that Manosa has devised the new one with his deep understanding of the tradition.

Rosario Encarnasion Tan is one of Manosa's leading disciples. She has researched traditional houses over the country and design architecture based on traditional and domestic backgrounds seeking for appropriate modern design to the present circumstances. One of her outstanding works is a house for her family. Though the main structural system is consists of reinforced concrete posts and beams, the sub-system is quite Filipino adopting bamboo construction methods not only in floors but also in openings, fittings and so on. The house shows the sensible combination of tradition and modernity in the light of using traditional methods into a modern house. It is remarkable that the bay window of the kitchen is the true heritage of the traditional house that is functional for drying dished in the open air. At the moment, there is still an advantage of bamboo construction in the country, for material and workers are available at low cost and the system fits to the climate as well.

5-4 Domestic Materials

In terms of domestic building material for modern architecture, concrete is the most noteworthy material because of its wide spread in the country. Among the three major materials for modern architecture: steel, glass, and concrete, concrete is the only

material that can be produced by local industry in the country. From the view-point of construction cost, reinforced concrete construction has been considerably cheaper than steel construction, for steel must be imported from abroad and it needs well-trained workers and technicians. This is one of main reasons why Leandro V. Locsin chose RC construction and investigated its beauty for his life.

Concrete block is also important domestic material for modern construction and has huge variety of quality and ways of usage(Fig.5-11). The high standard quality block can be used in load-bearing walls, but others are usually used in non-load-bearing walls. Even for external walls of high-rise building, the block is used because of the low cost method. Generally, it is observed that the variety of quality and ways of usage has made a characteristic construction method well-adapted to local conditions.

As for other materials widely accepted by modernism architects, adobe or Pinatubo stone is also important material for stone finish. It is a kind of volcano stone with porous surface, and easily matches with concrete structure. Some fine examples can be seen in the main hall of Cultural Center of the Philippines by Locsin, who designed his residence with the material for the interior wall of living room.

Apart from materials mentioned above, as far as the use of domestic material for modern architecture is concerned, it may be suggestive to refer to the 'three As' by Bobby Manosa who is one of important figures among the Filipino architects and enthusiastic for the Filipino style. For the sake of establishing the Filipino style, he explains the meaning of three As: awareness of the materials available in the country, acceptance of the use of these materials, and assimilation of these materials in our way. He used various kinds of domestic materials in his works such as coconut, bamboo, banana leaves, Pinatubo stones, capiz shell and so on.

The best example work built with domestic materials may be Tahanang Pilipino (Coconut Palace)(Fig.5-3) by Manosa in 1980. Manosa spent his at most effort to design it with processed coconut tree material that is used as structural parts and also panels. As the name explains the Filipino home, there are many kinds of indigenous materials: capiz shell, rattan, marble, bamboo, hardwoods, textiles and so on.

He is particular about using domestic materials compared with other modernist architects. But there is a kind of cultural barrier for using same material in a society among various classes. For example, plyboo, that is devised by Manosa folding bamboo sticks like plywood, has an excellent performance both in strength and in cost. Unfortunately at this time among the common people of wealthy class, plyboo is not esteemed as suitable material for their dwellings just as the use of galvanized corrugated iron sheet for roof. It may be understood that the limit of using the materials in modern architecture because of the difficulty of prevalence his thoughts to the public especially in terms of the assimilation of the domestic materials.

5-5 Quotation from Traditional Form

One of the most comprehensible ways to express domestic style clearly is to quote traditional shape directly such as roof line or shape which is peculiar to each areas. Sometimes architects design their modern buildings with traditional roofs for the sake of expressing their understanding of domestic culture. There are abundant examples of this pattern all over the world.

In the 1950s, when the modernism design was in its heyday, most modernist architects were hesitant about designing pitched roof that is entirely different from the modern flat roof that was thought to be a kind of the hall mark of the modern design. Even in the case of adopting pitched roof, they preferred to butterfly roof that has not traditional nor regional context. But in the late 1950s onwards, accompanied by the post-modernism, the pitched roof has restored its honor.

The shape of roof has its own reason to be designed originally. Especially in the hot-humid tropical areas, it is essential to protect interior space from heavy rain and more ash fall in the Philippines. Beyond such functional or practical reasons, the pitched roof has other aspect: the heritage of the Filipino.

In the early works of Bobby Manosa, the ex-Sulo restaurant in Manila built in

1962(Fig.5-12) thought to be one of the leading works that were designed with pitched roof. The roof was steeply pitched and the whole shape became a symbolic land-mark in a newly developed town area.

Leandro V. Locsin designed for the Philippine government as the Philippine Pavilion of the Expo '70 in Osaka, Japan, in 1970(Fig.5-13). The pavilion has an impressive shape of roof that reminds us the Philippines' traditional house. Also in 1984 He designed a huge scale of pitched roofs for the palace of Brunei's king(Fig.5-14).

From these examples it may well be recognized that the pitched roof has clear function that is the symbol of tradition when it is used to express its cultural identity rather than its practical function.

5-6 Modern Aesthetics with Domestic Motif

One of the main characteristics of modernism design can be seen in a simplified geometric form that has no historical connotation like the Renaissance nor the Gothic. And the characteristic has played an important role for the wide spread of the box-like international style all over the world especially in newly independent countries that had been colonized by the West for long time. In terms of the expression of modern art, the simplification with geometrical forms has relation to abstraction that has been a dominant theme in the modern art world.

It seems difficult to synthesize the traditional or domestic expression with abstract beauty, but there is still a possibility of the synthesis in the Philippines. It is significant to know that there are strong sunlight and long history of domestic architecture on stilts in comparison with the West. The former causes strong lighting contrast with highlight and shade that leads to design bold shape, and the later reminds of the basic composition of houses as a possibility of new domestic expression with modern aesthetics.

One of the important works of the mixture of the bold shape and the abstract

beauty from traditional house in the early stage was attempted by Leandro V. Locsin in his "Holy Sacrifice Chapel" in the campus of the UP in 1955(Fig.5-15). The main structure of the chapel is a RC construction shell just like floating on the ground floor. The architects' main concern was to design the chapel for more people who can access freely regardless to their positions in the society and he designed the floor plan in a circle. At the same time he had a concept to express the shape in connection with the Filipino traditional motif. Then he referred to the composition of the Bahay Cubo that has a mass on stilts. At the time the shell construction was a new technology not only in the Philippines but also in other Asian countries and it was outstanding that the thickness of the top was about 10 cm. The effect of the lightness of structure was the very aim for Locsin to remind of the same feeling of the Bahay Cubo. The work has become a landmark of the modern Filipino style in the country since then.

Locsin pursued the theme for his life time, and developed the concept from lightly floating space to massive floating space. In 1969 he designed the Cultural Center of the Philippines (CCP)(Fig.5-1) commissioned by the government as the new cultural symbol of the Philippines. The original idea was for the project of the Philippine American Cultural Center in 1961 that was not built unfortunately. But the idea composed of massive foyer on the ground floor with long extended cantilevers was same. It was fortunate for Locsin that he was given much more initiative by the government than the project to realize the edifice dramatically on the grand scale site.

From the CCP his design expressed not only floating mass but also bold shape emphasizing his strong intention. The Philippine International Convention Center (PICC)(Fig.5-2) completed in the CCP Complex in 1976 is also an impressive work which scale is larger than the CCP and the effect of the boldness is astonishing and the long extended entrance canopy is rather magic design. As for the bold shape. There are many other examples such as the Makati Stock Exchange(1971)(Fig.5-16), the L.V. Locsin Building (1989), Ayala Triangle Tower One (1996)(Fig.5-17) and so on.

After the completion of the CCP, some important works by other architects in terms of Filipino style have been built. Mendoza Batasan Pambansa Complex (1978)(Fig.5-18) by Filipe M. Mendoza and the Philippine Heart Center (1974)(Fig.5-

19) by Jorge Ramos are good examples that express the boldness in shape related to the domestic climatic conditions. Though it is not clear that these architects were influenced by the CCP or not, their works are similar to the CCP. And this similarity may explain that there is a universal possibility for modern aesthetics to coop with domestic motif.

5-7 Conclusion

It is well known among the Filipino architectural society that many Filipino modern architectures have little concern with Filipino style and are oriented mostly by the American contemporary style. But it is noteworthy that there are two representative architects who have pursued of modern Filipino style and have contributed greatly to the establishment of the style: they are Bobby Manosa and Leandro V. Locsin. Though they have their own characteristic ways of design, it may be noticed that they have shared the essentials of the theme of quest for the Filipino style. And as long as the essentials of the theme can be shared with other architects beyond region or generation, it must be an important footstep for most architects who have concern about their own identity in their design to understand the meaning of the activities carried out by the two outstanding architects.

It is remarkable that both Manosa and Locsin designed their works under the circumstance of contemporary conditions such as construction technology, economic background, social needs and so on, where most other architects could not clearly express their Filipino style. Their works have always reflected the circumstance clearly and ,at the same time, expressed the ability to overcome the problem by creative effort that brought the cultural adaptation. The effort can be seen in the synthesis of insights into each conditions and the necessity of design.

It is also important that they have something in common with the deep understanding of the history of their country. As the post-modernism architecture of the world supported by strong interest in history, it may be impossible to establish the Filipino style without such understandings as a matter of course. And it will be an eternal problem for architects to establish the Filipino style with convincing way that is

accompanied by the necessity of design, as long as they pursue of the architecture as the product of whole culture of their country for the sake of the enrichment of their culture.

References

- 1) ANON., "Give Philippine architecture a future", *Business World*, May 30, 1989,
- 2) BAUTISTA, Bnn C., "Philippine Architecture 1948-1978, Reyes Publishing Inc., 2000
- 3) CHUA, Alvin , "Architect Francisco Manosa: Spearheading A Crusader For A Contemporary Philippine Architecture", *Construction Management*, October 1990, pp.8-10, 1990
- 4) FRANCISCO, Mariel N., ARRIOLA, Femaria C., "The History of the Burgis", GFC Books, 1995
- 5) GECOLEA, Thelma A., "Bobby Manosa: Distinctively Filipino Architecture", *Philippine Architect & Interiors*, November 1997, pp.51-58, 1997
- 6) KLASSEN, Winand, "Architecture in the Philippines", Univ. of San Carlos, 1986
- 7) MANAHAN, Gerenimo V., "Philippine Architecture in the 20th Century", Kanlungan Inc., 1994
- 8) MANOSA, Francisco Bobby, "What Makes Architecture Filipino", *Newsletter of Architectural Centre Club, Inc.*, vol. II , April-June, 1993
- 9) PEREZ III, Rodorigo D., ENCARNACION, Rosario S., DACANAY, Julian E. Jr., "Fork Architecture", GFC Books, 1989
- 10) POWELL, Robert, "The Urban Asian House," Select Books, 1998
- 11) SENTRONG PANGKULTURA NG PILIPINAS, "CCP Encyclopedia of Philippine Art, vol. III Philippine Architecture", Cultural Center of the Philippines Special Publication Office, 1994
- 12) TAYLOR, Brian Brace, "Bobby Manosa", *Mimar*, vol. 28, pp.60-80, 1988
- 13) USHIROSHOJI, Masahiro & RAWANCHAIKUL, Toshiko, "The Birth of Modern Art in Southeast Asia: Artists and movements," Fukuoka Art Museum, 1997
- 14) ILLALON, Augusto F. & PEREZ III, Rodrigo D., "The Poet of Space: Leandro V. Locsin", The Cultural Center of the Philippines, 1996
- 15) ZIALCIA, Fernando N. & TINO, Martin I. Jr., "Philippine Ancestral Houses", GCF Books, 1996

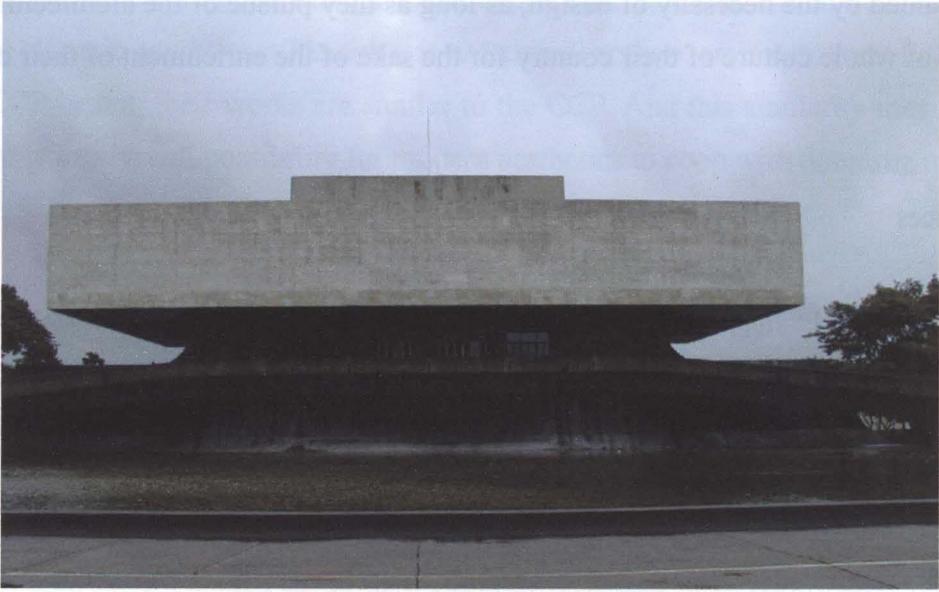


Fig. 5-1 Cultural Center of the Philippines 1969

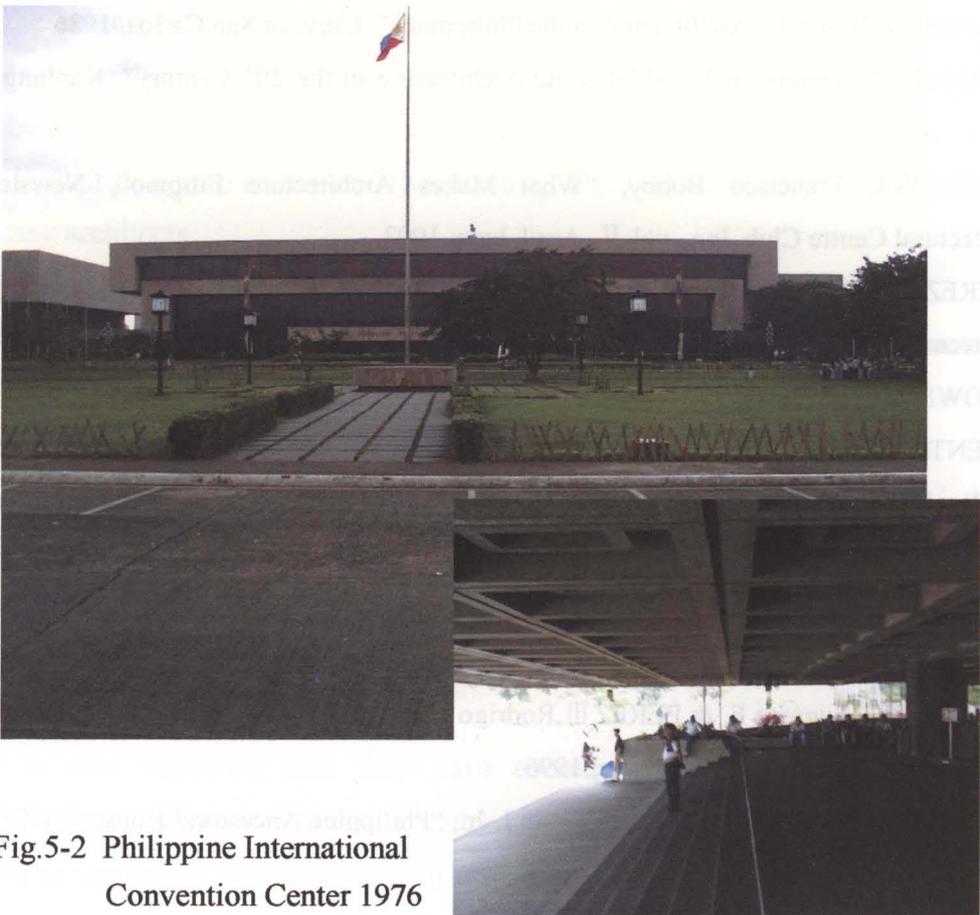


Fig.5-2 Philippine International Convention Center 1976

Entrance Canopy of PICC



Interior



Exterior

Fig.5-3 Tahanang Pilipino (Coconut Palace)
1980



Capitz shell ceiling



Fig.5-4 Bahay Kubo (cit. Philippine Ancestral Houses)



Fig. 5-5 Bahay na Bato



Fig. 5-6 Opening and Ventanilla



Fig. 5-7 Calado



Fig. 5-8 Living Room of Locsin House
(cit. The Architecture of Leandro V. Locsin)

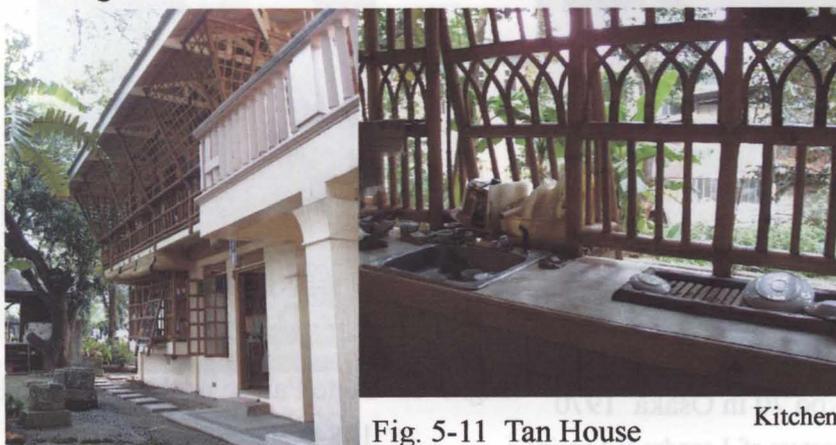


Fig. 5-9 Interior of Manila Hotel



Interior

Fig. 5-10 Francisco Manosa & Partner Office Bldg.



Kitchen

Fig. 5-11 Tan House



Fig. 5-12 Concrete Block Construction

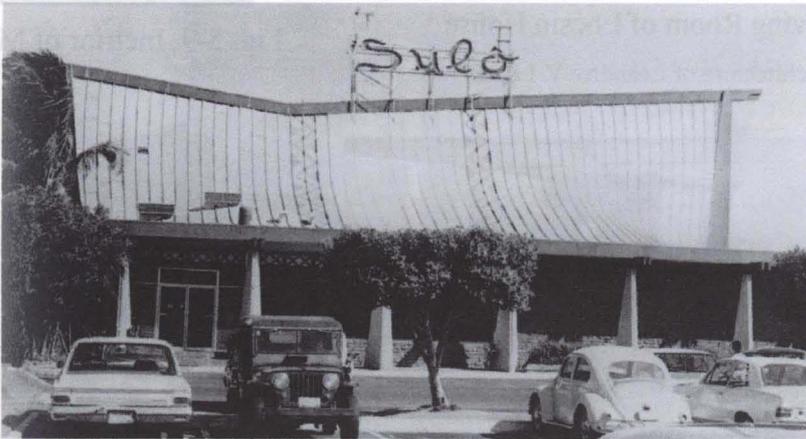


Fig. 5-13 ex-Sulo Restaurant 1962
(cit. Philippine Architecture 1948-1978)

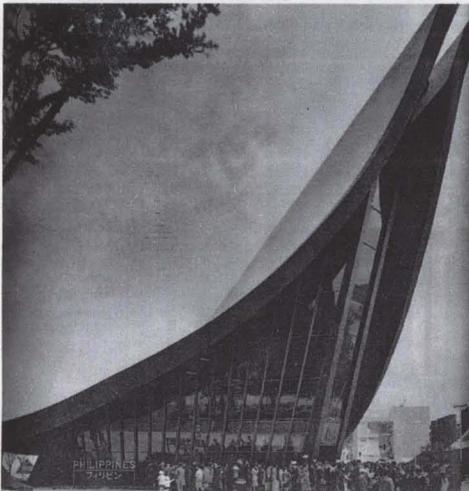


Fig. 5-14 Philippine Pavilion of the
Expo 70 in Osaka 1970
(cit. The Architecture of Leandro V. Locsin)

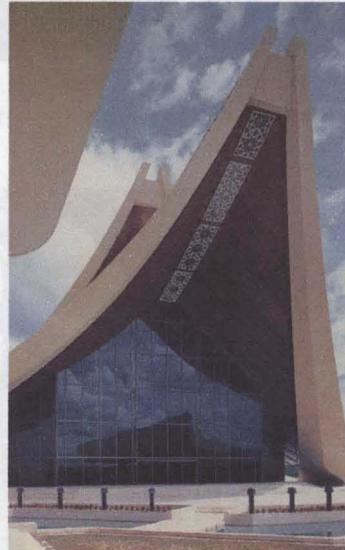


Fig. 5-15 State Palace of the Sultan of Brunei
1984 (cit. The Poet of Space)

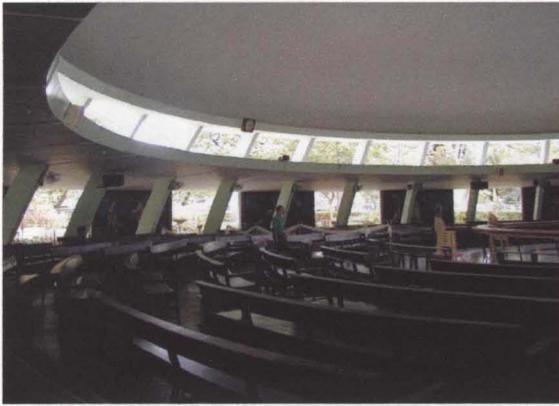


Fig. 5-16 Holy Sacrifice Chapel in UP 1955



Fig. 5-17 Makati Stock Exchange 1971

Fig. 5-18 Ayala Triangle Tower One 1996



Fig. 5-19 Batasan Pambansa Complex 1978

Fig. 5-20 Philippine Heart Center 1974

(cit. Philippine Architecture 1948-1978)

Chapter 6 Conclusions

6-1 Universality and Diversity

The Philippine modern architecture has been influenced strongly by the American modernism still at this moment. In the long history of introducing the architecture, the Filipino architects have always been keen on the contemporary styles of the Americans mostly because of the need of the same styles by the clients. For the clients, the modern architecture has been the symbol of progress or the symbol of success. As the word 'progress' has the meaning of the universality of the value. As a result, the 1950s was the period of introducing so-called international style as the most trendy architectural style in the world.

But from the '60s or the '70s in the architectural society, the universality did not work well as before, because of the mismatch of climatic design caused by direct design copy, and more, of the consciousness of the identity of the Filipino. The quest of 'Asia or West' had some sense at the early stage of the introduction of the Modern architecture. The rise of the quest was the beginning of the confusion or the contradiction of the architectural design in non-West areas.

From the theoretical point of view, the words universality and diversity can not consist with each other. For the universality needs the unification of the value. People who needs the symbol of the progress should establish the norm with a single value and every architecture should be classified within the hierarchy of the value, that is, the progress introduced from the West. But on the other hand, the diversity could only be accepted when the every value of the things is estimated equally without the hierarchy of the value. This means that both the international style and the domestic style are the same in terms of the value of the diversity.

But such simple dichotomy does not make sense any more at this time. Because we live in the highly integrated society by the wave of global information and the ways of living and thinking have gradually changed from the era. This means also the change

of the Asian sense of the value. As long as the concept of the word “progress” does not make sense as before, it would be needed to make the new concept getting over the contradiction of the universality and the diversity.

6-2 Necessity and Sensitivity

As long as architecture is the product of its local activity, architects cannot get rid of constraints on the production. Through the research of this study, it might be possible to mention that some of the major constraints are local condition such as climate, production technique, construction materials and social needs. Especially for the introduction of the modernism architecture, these constraints have been serious problem for architects and they spent a great deal of efforts to meet clients’ demands sufficiently, sometimes they put stress on the stylistic aspect.

Accompanied by the rise of the environmental consciousness caused by the energy crisis in the 70s, it has been dramatically closed up that architects have to pay more attention to the necessity of design that is efficient for economic performance of buildings. The change of the stream of design might have provide opportunity for architects to design according to the necessity of the building factors more as before. The development of architectural style may not be continuous but discontinuous as far as the modernism architecture in the tropics is concerned. The necessity that has strong relation with the constraints mentioned above should be most likely given attention to lead the stream of design to a sensible one.

There might be a more complicated problem for architects, that is the synthesis of factors of necessity. Then, it becomes an important point that is the sense of total balance. As the word “as architect” means the master of technicians, it should be also applied to contemporary architects who recognize whole situation precisely and can judge each problems with well-balanced sense. The sensitivity may derive from architects’ personality that is firmly established with confidence getting over the conflict between universality and diversity.

The globalization of architectural standards is one of the great issues among contemporary architects. But this matter is not a new problem but an ever-lasting problem in the architectural history of everywhere in the world. It is needed for architects to broaden their scopes in order to establish sensible architectural culture.