

論文の内容の要旨

A study on Bipolarity in the architecture of Leandro V. Locsin

レアンドロ・V・ロクシンの建築における二極性に関する研究

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I. Introduction

There are two opposite, conflicting forces found in every action. They symbolize the two polar energies that, by their fluctuation and interaction, are responsible for the dynamic universe. This notion means that reality consists of relationships between two opposite principles, upon the balance of which harmony results. However, it is also a fundamental principle that we cannot have one force is needed in order to induce the other; and it is by the interaction of these opposing forces that the dynamism of the world is produced.

STUDY RATIONALE

Ancient Malayan origins provide the stock for the Philippines' rich culture. Chinese and Arabian influences, along with three hundred years of Spanish dominance and fifty years of American imperialism contribute body to the mixture.

Philippine culture has always been a unique blend of East and West. The culture of the Philippines naturally being at polar opposites, this bipolarity is also manifested in architecture. In the post-war era, there was a significant shift to develop a modern Philippine architecture.

To date, studies and research on Philippine architecture have been limited to the study of social factors (function), constructional data (technics), decorative characteristics (plastic and pictorial elements). These contributions are unquestionably highly useful, but they are ineffectual in communicating the holistic value of architecture.

OBJECTIVES OF THE STUDY

The first part of the study seeks to define why polarity is a concept that relates closely to the development of Philippine architecture. Therefore, we shall describe how Philippine architecture developed into a natural mix of eastern and western principles and how this subsequently affected the development of the architecture of Leandro V. Locsin.

The main objective of this study is to explore the concept of bipolarity as a recurring characteristic in the architecture of Locsin through a thorough formal analysis of the forms and spaces of his buildings. We want to find out which bipolar characteristics best exemplify his work and how their manifestations in his designs have evolved over time. Through this we may be able to define the design development of his architectural style.

METHODOLOGY

In the first part of the study, the author made a wide sweep of the literature on architecture in the Philippines and on Locsin in order to determine the starting point of the research. The research on Folk architecture imparted that forms were borne from adaptation to the natural environment (Perez, Encarnacion and Dacanay 1989). And in most of the literature on Spanish colonial architecture, there was a constant emphasis on a blending of east and west (Zialcita and Tinio 1980, Alarcon 1998, Javellana 1997). The literature on American culture show the introduction of new values and ideas (Alcazaren 2000; Perez III 1994). The previous monograph on Locsin (Polites 1977) proved highly informative as to initial data on Locsin's works, as did the writings of Locsin on Philippine

architecture (1964, 1966). The comments of Klassen (1986) on the need to further define the concept of bipolarity in the works of Locsin provided the basis for this research.

The research was supplemented by readings into visual perception (Arnheim 1969 and 1977, Giedion 1967, Norberg-Schulz 1966, Frankl 1962), art (Sedlmayr 1957, Wofflin 1950) and architectural theory (Venturi 1977, Zevi 1957 and 1978, Pelli 1999, Tafuri 1980). Review of literature on architectural analysis (Unwin 1997, Bachelard 1958, Evans 2000, Clark and Pause 2005) and semiotics (Preziosi 1978, Barthes 1968) were also done.

Also accomplished were extensive data-gathering trips to the Philippines. A total of seventy projects (Table 1) of Locsin were analyzed in this study, fifty-three of which, the author has been able to personally visit. Also included were interviews with Locsin's son, Leandro Jr., as well as with several of the partners at his firm, Leandro V. Locsin and Partners (LVLP).

In the analysis of the built works, the author was particularly interested in finding examples of polarity in both in the exterior and in the interior. Each manifestation of polarity was noted down, classified and analyzed to determine how the concept of polarity is architecturally manifested. From this analysis, we were able to ascertain how the design development of polarity evolved.

II. Development of architecture in the Philippines

Pre-Spanish constructions, like those prevalent in Southeast Asia were mainly wooden and built above the ground. The Spanish introduced building with stone, however, constant earthquakes prevented the practice of building wholly in stone. Thus, a hybrid dwelling was produced: roof trusses and floors were held up by wooden posts and together they formed a giant frame that shuddered freely during tremors, while stone was only used as a covering on the ground floor.

Whereas the Spanish mainly built fortifications and churches, the Americans set up basic infrastructure, and provided public facilities such as hospitals, schoolhouses, and town halls. Manila was laid out according to the Burnham plan and through the designs of Parsons, buildings of Neo-Classical and Revivalist styles, and later Art Nouveau and Art Deco styles abound. The Americans also set up training schools and introduced modern building techniques in the Philippines.

During World War II, there were no building projects to speak of and in the years following the war, architects were simply focused on rebuilding the ravaged cities. On July 4, 1946, the Philippines was declared an independent republic. It was at this time that questions of nationalism and of national identity arose. Perhaps it was the shock of newfound independence that prompted these soul-searching themes.

III. Leandro Locsin: the emergence of modern Philippine architecture

In a discussion about contemporary architecture in the Philippines, Leandro Locsin figures as one of the most significant movers. The sheer volume of his built work surpasses that of any other practicing architect in the country. However, it is not only the number of projects that he has built that has allowed him to carve a significant niche for himself, but the significance of these projects to the development of urbanization and of contemporary architecture in the Philippines. Locsin's architecture has been attributed to having a distinct Filipino character (Zobel 1977, Zialcita 1989, Rouda 1995), and his studies in Philippine archaeology, history, folk architecture, music and Philippine modern art all combine to produce a continuous striving, unconsciously and consciously, for an architecture which is truly Filipino.

IV. Polarity in the works of Leandro V. Locsin

Polarity is manifested in the works of Locsin in the following ways:

1. FLOATING EFFECT (Figure 1)

The floating quality pertains to the idea of buoyancy and gravity. The analysis of *Buoyant Mass* (apparent mass of the suspended object) shows that we may divide the samples into two basic groups: singular floating masses and multiple floating planes. Both are rectangular in nature although those of the former are more massive than the latter. Also, the analysis of the samples by *Buoyant Force* (strength and quality of the supports of the buoyant mass) yielded three classifications of the forces applied to the buoyant masses. The first is upright vertical support, which mostly caters to multiple floating planes and is used to impart even, distributed support. Next are the slanted forces, which seem to be precursors of the final classification, curved forces. Slanted and curved forces are usually employed in singular floating masses.

2. GROUNDING FLIGHT (Figure 2)

Grounding relates to the anchoring pull of gravity to the ground, and Flight denotes movement and a detachment from the ground plane. In order to analyze the quality of Grounded Flight, we took into consideration the qualities of the *Anchored Mass* and the *Anchor Supports*. Unlike the buoyant masses of the Floating quality, anchored masses generally are not rectangular blocks. They are characterized by their connection to the ground, unlike the buoyant masses that are completely separated by the area of displacement composed of their supports. In the matter of anchor supports, we see an evolution from slanted supports to footed bases. These footed bases articulate the separation of the anchored mass from the ground and prevent the vertical movement from seeming to continue beyond the ground plane.

3. ENCLOSED OPENNESS (Figure 3)

This pertains to the quality of Locsin's work that involves the *multiple enclosures around a central core*. Though visibly open, the core space is enclosed by several levels of permeable residual space that impedes the direct access of the core space. These permeable residual spaces surround the core space with different levels of tangible or implied barriers. For example, in the Church of the Holy Sacrifice, there are concentric layers that surround the altar and provide different levels of interaction. Though from within, the space seems very open, light

and airy, however by the approach from the exterior into the chapel, one may feel the different levels of enclosure that surrounds the core space. Thus the space is layered; the residual spaces enclose the core space within several layers of space.

4. ALTERNATION OF OPPOSITE SPATIAL CHARACTERS (Figure 4)

The alternation of opposite spatial character is evident in how *larger dominant spaces* and *narrow residual spaces* alternate in Locsin's work. There is a visible pattern of separation and re-integration in the passage from residual space to the dominant spaces. One enters a building through a low, cantilevered canopy that seems to propel movement into the inner space, upon entering one is greeted by the wide open expanse of the lobby, however, to get to the other dominant spaces, one has to pass through narrow residual spaces. Often, there are no tangible barriers that segregate one dominant space from another, but because residual spaces are scaled to the human height, they seem to induce a separation from the dominant spaces. The dominant spaces in turn, usually allow for easy integration because of their high ceiling height. In some cases, the ceiling plane of the dominant space is curved at the sides and visually defines its edges.

V. Conclusion

We have used the concept of bipolarity as a starting point for our inquiry, as it abstractly represents the dilemma of the Filipino, caught as he is between two very different worlds. In our analysis of Locsin's architecture, we have found an incorporation of bipolar elements in both exterior form and interior space.

One underlying theme apparent in the bipolar qualities of both form and space of Locsin is an inclination towards detachment leading towards later reintegration.

In the manifestations of bipolarity in the exterior form, there seems to be an underlying connection between the floating quality and grounded flight. If we follow the progression of the floating quality from upward vertical forces

towards slanted and then finally to the curved forces in the support of the buoyant mass, we may situate the Theater of Performing Arts at the pinnacle of its design development. From this point we may make a connection to the aspect of grounded flight.

This tendency towards lightness may stem from the early concept of traditional folk houses on stilts. Early developments of floating are of light construction and tend to use upright vertical supports much like traditional folk architecture. Later developments show the supports evolve into slanted and then curved forms that blend strength with grace. However it should be emphasized that though later forms represent an abstraction of local forms, they are now evolved into symbols of power¹.

Bipolar qualities exist in the conception of Asian and Western space. Whereas western space is divided, Asian space is separated simply by a time-space continuum that is understood by its users. The qualities of enclosed openness and alternating spaces of opposite spatial character both stem from the bipolar need to segregate space while maintaining a continuous flow throughout the rooms.

Locsin said, “[The Philippines is] a hybrid culture. This is both our weakness and our strength.” It is by an understanding and acceptance of bipolarities in culture as is pertains to the production of new forms that we are able to harness bipolarity as a tool to develop and further communicate architecture and culture.

¹ *Locsin's public buildings were commissioned by the late Philippine president Marcos and his wife Imelda, who bade him expressly to build forms that echo local traditions.*