Modern Environmental Science and Engineering (ISSN 2333-2581) August 2017, Volume 3, No. 8, pp. 591-599 Doi: 10.15341/mese(2333-2581)/08.03.2017/010

Academic Star Publishing Company, 2017

www.academicstar.us



# Signification of Architectural Form-Meaning Relationship: In Catholic Architectural Inculturation

Joyce M. Laurens<sup>1</sup>, Antariksa<sup>2</sup>, and Purnama Salura<sup>3</sup>

- 1. Petra Christian University, Indonesia
- 2. Brawijaya University, Indonesia
- 3. Parahyangan Catholic University, Indonesia

Abstract: Aim of this study is to explore the relationship of form and meaning in architectural inculturation which can be seen as a powerful agency to reinforce the sacredness of church architecture. Inculturation process shifted the preferences of having typical Gothic church architecture to new local architecture Christian style. This is a descriptive, analytical and interpretive study, using an interdisciplinary approach by borrowing structural analysis from the discipline of semiotics and complemented by architectural analysis of Pugeran church as the case study. Description and analyses are made to identify the local architectural components that are present in Catholic worship and to explain the meaning behind it. The study showed that there are layers of meaning in relation to the formal and spatial design, structural aspects and ornamentation in architecture, in the context of sacredness. This analytical understanding could be the basis for the strategic action to address issues of church architecture and its interaction with local culture.

Key words: meaning, semiotics, local architecture

# 1. Introduction

Architecture is a product of culture through a long-time process in relation to the context of locality. Gothic architecture as part of the world architecture vocabularies; known as the symbol of sacred architecture has become an important reference in Roman Catholic Church. Most of the early Catholic churches all over the world, included in Indonesia were designed by following the Gothic or neo Gothic style. However, in its development, inculturation process has shifted the preference of having Gothic architecture to a new local style. The word "inculturation" or "enculturation" ("in" or "en" in Greek means "to come inside") figures out the process of someone initiation into a particular culture in a particular time.

Inculturation is a name given to an essential aspect of the mission of the Church; the discourse on inculturation is of a theological nature. Catholic leaders and theologians have used this term in recent decades to denote a process of engagement between the Christian Gospel and a particular culture. It is a movement in Catholicism to respect the local culture and enrich itself with the local values [1, 2]. The practices of inculturation existed since many decades ago, however, the term inculturation just gained an official recognition since the Second Vatican Council in 1962-1965, and was defined in the decree as follows: "Inculturation is the intimate transformation of authentic cultural values by their integration in Christianity, and the implantation of Christianity into different human culture" [3]. Through inculturation process, the Church makes the Gospel incarnate in local culture, such as the Javanese culture, and at the same time introduces people, together with their

**Corresponding author:** Joyce M. Laurens, Dr., Ir., M. Arch, research areas/interests: semiotics, behavioral architecture. E-mail: jmlaurens22@gmail.com.

cultures, tropical environment into their own community [4-6].

The Second Vatican Council and its supporting statements did not have a great deal to say about church architecture, however, conciliar statements about liturgy also entered into a movement in thinking about church architectural design. Inculturation was the creation of a new unity and communion, not only within the culture but also as an enrichment of the universal Church. As the most visible expression of Christianity in the public space, architecture was a major challenge to inculturation. It is not necessary for the church architecture in Indonesia to follow the western culture; then, it comes in a different form, away from the Gothic architecture and is more closely to the local architecture.

Discourse in the history of church architecture, always distinguished function, architectural form, and meaning as the main factors. There is a tight relationship amongst these three factors. Church architecture is supposed to be a place of wonder where one finds both mystery and answers, where one feels both properly humble and immensely dignified, where one might simultaneously move through space and time and remain in contemplation and prayer.

Function accommodated in Gothic church and the local church architecture sustained as the Catholic place of worship, but the architectural form is definitely changed, from a Gothic style to new local Christian architecture. Church architecture in some way conveys ideas, or bears meaning, embodies beliefs and ideologies, inspires feelings, or in some way "speaks to" those who experienced them. If the building is devoid of religious imagery it is quite easily translatable to other use, such as school, medical centre, or community centre, etc.

There were many instances of new churches or contemporary churches that were failing to survive for a variety of reasons [7]. Then, the question raised is how about the meaning in relation with the new architectural form, which using the local architecture as its reference? Can the church building elicit a response even apart from its liturgical use; can it give people an experience of sacredness or "the present of the holy", even before anything else happens within the space? To understand the role of local culture in dealing with the sacredness of the Catholic Church, then we need to unveil the signification of the church architectural form and meaning relationship.

#### 2. Material and Methods

The church of the Holy Spirit of Jesus, located in the district of Pugeran, Yogyakarta, is taken as the case study. This is a Catholic church, also known as Pugeran church. The church was established in 1934 and formally opened to public on 8 July by Dr. A. van Kalken S. J. [8]. The church is presented to God by the Jesuit missionaries on their commemoration of 75 years working in the Netherlands Eastern Indie, under the leadership of priest HEF van Driessche S. J. The church was designed by a talented architect, Th. Van Oyen in a Javanese environmentally appropriate style. At that time, this church architecture got a great attention from the European society for its architectural form, which was named as an indigenous Catholic church in Java. Up to now, this building is still in a good condition without any major changes since its establishment, and is used daily as a place of worship by the parishioner.

This is a descriptive, analytical and interpretive study. Structural analysis were made by borrowing the semiotics approach and complemented architectural analysis, based on literature studies and data collected in the field of the case study; consisted of recording rites and liturgical activities, observing the environment and architectural form where those activities took place. The analytical steps taken were divided into two: the first step was exploring the architectural components of the Pugeran church, by identifying and comparing all physical architectural components existed in the church architecture to the concept of Javanese traditional architecture as its reference. The second step was explaining how they got there, interpreting the meaning behind the architectural form in relation to the context of Catholic liturgical activities, and to the Javanese culture. In the second step, analysis was made by using the Greimassian Square or Semiotics Square. Description of the case study was spelled out in detail through its form and meaning. Then, structural analysis was made by using the actantial model of Greimas, as a tool to analyze the relationship between the form of architectural inculturation and its meaning. A thoroughly exploration of any actions within the liturgical activities that involving architectural form and the meaning behind it, could unveil the role of the architectural inculturation as supporting actant in achieving sacredness of the Catholic church.

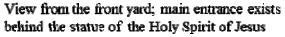
### 3. Results and Discussion

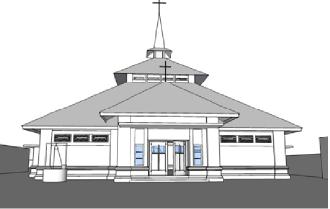
#### 3.1 Architecture Inculturation

Dynamic equivalence and creative assimilation are instruments of the inculturation process, which are used mostly in liturgical inculturation [5, 9]. Creative assimilation starts from what there is in culture, while dynamic equivalence confines itself to transmitting the message of liturgical rite in the local cultural pattern. Inculturation involves the Spirit's call for each culture

and people to elicit their own creative response to the Gospel. The true dialogue taking place between the culture and the Gospel message is manifested through visible and concrete works of architecture. Therefore, based on the understanding of the inculturation instruments, the architectural form of Pugeran church as a concrete expressions of the Javanese worldview and expression of their hopes and aspirations, was analysed by breaking it down into three categories, i.e., formal-spatial design, structural aspects ornamentation. Each category was thoroughly explored by comparing it to the basic concept of Javanese traditional architectural form, i.e., the lower part (the ground or batur), the middle part (wall, column or saka) and the upper part (roof and ceiling or empyak), either in its plastic dimensions or its topological dimensions. Comparison architectural components of the Pugeran church, with the concept of Javanese traditional architecture, showed that influence of traditional Javanese architecture was strongly expressed in its formal design and structural aspect, but not in the ornamentation. Geometrical form of the church building, the form of the ground plan, the sloping roof, were following the tajug type of the Javanese architecture (Fig. 1 and Fig. 2).







West elevation/west entrance of the church building,

Fig. 1 Formal-spatial design of architectural inculturation of Pugeran Church as seen from outside the church building.

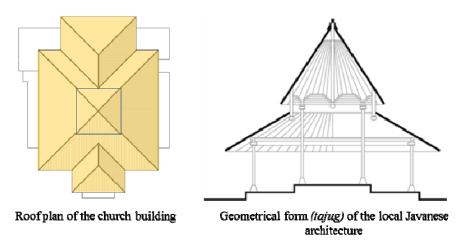


Fig.2 Geometrical form of Pugeran Church in comparison with the local Javanese architecture.

There are similarities in building's position and layout of hierarchical spaces in the case study compared to the Javanese architecture. However, the building's orientation was not similar; in the case study, building was orientated to the west-east; while in Javanese architecture is to the north-south (Fig. 3).

The building was constructed with four main columns positioned in the center of the building. This structure system — configuration and construction of columns and ceiling — was following the concept of local Javanese architecture, i.e., saka guru

(maincolumns of building) and *tumpang sari* (carved ceiling in between the main columns).

The difference of the structural system between that of the church building and the local architecture, occurred in the perimeter of the building. Bearing walls enclosing the whole interior space of the church building, separating physically the interior from the outside, was not existed in the local architecture. Javanese architecture has no walls surround but secondary columns (*saka pananggap*) instead (Fig. 4).

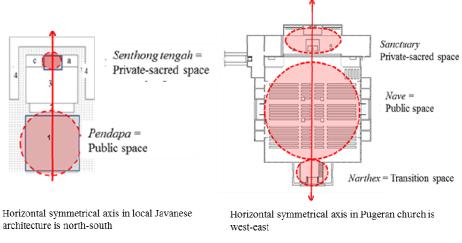


Fig. 3 Hierarchical spaces and building orientation of Pugeran Church in comparison with the local Javanese architecture.

# 3.2 Architectural Semiotics

The semiotics of architecture may be conceived as semiotic of space or spatial semiotics. The term architecture in a broad sense can be understood as applying to spaces, such as gardens, buildings, villages, or towns. However, in the semiotics of architecture, as developed by the Paris School, the term architecture is used specifically to buildings. It sees a building as a single autonomous object, but at the same time sharing

the conviction that architecture as a sign-system cannot exist totally independently of other forms of semiotics. Semiotics of architecture is concerned with the specific system of manifestation, that is concerning with the way architectural meaning takes form in the data that confront human senses, or its appearance. Architecture is realized and concretized in such a form that confronts our senses, or the way we perceived.

Architecture is operating in some way as language. It is hard to say how we are introduced to the language of architecture, how we learn to distinguish domestic architecture from sacred architecture, for example. In doing so, we often are aided by verbal or iconic signs; but the existence of such signs, even the need for such signs, does not take away from the fact that we learn to "read" what the buildings — or different places in which we find ourselves — "speak". To claim that "building speaks" is merely to claim that they are signs. A sign can reflect more than one type of relationship between its representamen (sign vehicle) and its object (referent). Since architecture is a complex sign, then contextual relationship is needed to understand the language, which signifies something in virtue of having a structure or form of expression, and a corresponding content structure.

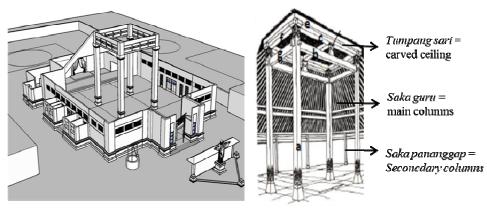
The architectural form is the form/substance of expression which is constructed and identified as a material architectural object or tectonics, running from the more abstract to the more concrete one. The form/substance of the content refers to the semantic and syntactic structures that form the sign-object and the meaning communicated by it, running from the unconscious to the realized/conscious one, or from the deep level to the surface level. The plane of expression and content meets in the manifestation level as we perceived (Fig. 5).



Interior of the church



Building section showing the building structure system



Main columns in the center of the church building Structure system of the local Javanese architecture

Structural system of Pugeran Church in comparison with the local Javanese architecture.

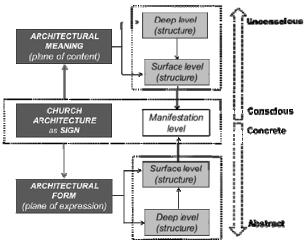


Fig. 5 Relationship of the plane of expression and the plane of content.

To understand architecture in the context of sacredness is to examine the correlation between the plane of expression and the plane of content of the church architecture. The plane of expression is dealing with the actual structures or the materiality of the signifier. It is the physical sense in which the architectural space or the building is constructed and recognized. The plane of expression can be categorized in two main categories: the topological dimension covering categories of position and orientation; The second category is the plastic dimension which consists of the materiality of the form which makes a space or a building a constructed space; covers the chromatics — related to colors and shades of light, and eidetic aspects—related to shape of different units. Meanwhile, the plane of content refers to the meaning communicated by the sign, i.e., the semantic and syntactic structures of the architecture [10-12]. Having the object described in detail, structural analysis is made using actantial model, developed by A. J. Greimas. In this model, an action are broken into six actants, which are classified into three axis, i.e. subject-object in the axis of desire, sender and receiver, in the axis of transmission, and helper/supporting-opponent in the axis of power. The subject is what is directed toward an object. The relationship established between architecture as the subject and the sacredness as the object is a junction. Architect as the sender is the element requesting the establishment of the junction between subject and object; and the receiver is parishioners as the element for which the quest is being undertaken. The helper/supporting element is the architectural inculturation which is achieving the desired junction between the subject and object At every level of form-meaning relationship, this kind of actantial model is made, to find the role of the architectural inculturation in serving the liturgy and figuring the transcendental meaning.

# 3.2.1 Manisfestation Level

The complex of Pugeran Church is located in the middle of the city bounded by housing and commercial buildings, and by street *Jalan Poegeran* on the south. Cars, motorbikes and pedestrians may enter directly from the street in the south to enter the carpark at the side behind the church. The whole church complex is marked off by a boundaries wall, thus it is clearly delineated from the neighboring property. When looking to the church complex from the outside, how can people recognize that it is a Catholic church? Does the building give clue as to its purpose (Fig. 6)?

Topologically, position of the church building that is centered to the gate makes it easy for the people in the street or sidewalks to have visual access. In front of the church building there is a statue of Jesus. This can be seen as the identity of the church, it is dedicated to Holy Spirit of Jesus. Moreover, the plaque

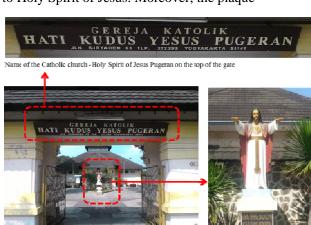


Fig. 6 View from public street.

announcing the name of the church "*Hati Kudus Yesus*" (The Holy Spirit of Jesus) could be read as an implicit reference to the church as recipient of the building.

Imposing front entrance or statues, crucifix or having tower or steeple-bell is the characteristics associated with typical traditional Catholic church. Even though people who are passing by could not see the bell clearly because it is placed at the center of the roof, but the sound of the bell on Sunday, the crowds as the patterns of use, especially at weekends indicate that is a church rather than a secular building. In this object, there are some outward identifying sign, such as name-plaque, cross, statue, which are visually indicate the purpose as a church. At this level, the discursive memories about a church architecture led us to successfully recognize what we see and identify the form of expression accordingly. The Javanese architectural elements do not play a great role in this universal meaning,

#### 3.2.2 Surface Level

As we enter the complex, does the building itself give the clue of its function, as place of Catholic worship? It seems that the church is exposed to the view of the visitors. Clear visual and physical access from the front yard, are given to the church building. Visually, geometrical configuration of the church building — characterized by its ground plan, and roof — is identified as similar to the "joglo tajug", a type of Javanese architecture.

As we entered the building, we find the typical "pendopo", as an assembly hall in the Javanese architecture. Traditionally, a complete Javanese house consists of front yard, pendopo, pringgitan (transition hall terrace), dalem (main hall building, which are divided into three parts: senthong kiwo, senthong tengah, senthong tengah) and gandok (for daily life activities), sequentially [13]. A strong horizontal symmetrical axis characterized the arrangement of Javanese house. Senthong tengah, position at the end of the axis is known as the spiritual space where sacred belongings are stored, and a contemplative

place for the owner to meditate.

Pendopo is an open building, steps are provided surrounds "pendopo" building, allowing people to enter the building from many sides, since there is no walls. Steps are the physical boundaries in "pendopo", to distinguish the inner and outer space, the public and private space. In the church building, there are walls surround that indicate the degree of holiness, separate outer space and inner space. However, when we looked at the interior of the church building, configuration and construction of columns and ceiling is following the concept of "soko guru" (main columns of the building) and "tumpangsari" (carved ceiling in between the main columns) of the pendopo from the Javanese traditional building.

Does it relate to the liturgical activities? Would it take to make the space work in terms of sacred space? The central area of the church — the main aisle flanked by rows of pews which is known as the nave — is the area of the congregation; it is the area where the "saka guru" and "tumpangsari" existed. The space in Pugeran church may function well as people expect if the liturgy they celebrate in it is dynamic and conveys a sense of participatory in the celebration, focusing on to the altar as a place of sacrifice. The spatial dynamics and the centering focus of the church architecture might be said to express its purpose. In this case study, altar in the sanctuary as the focus of attention, is highlighted by its architectural setting. The quality and color of architectural ornaments, the shape, height of the sanctuary, the lighting and the way the altar is place with respect for the congregation affect the way a congregation experiences the celebration of the Eucharistic prayer. Meanwhile, the form of sakaguru and its tumpangsari, do not directly play this role.

Architecture as signs can be culture-specific; in fact, most signs are produced for and by a specific culture to allow communication among its members. The symbolic resonance might be taken to express its meaning. Now, let see the relationship of the more

abstract form and its meaning, which might be sensed in a more unconscious way.

# 3.2.3 Deep Level

Configuration of the "soko guru" and "tumpang sari" constructed in a horizontal symmetrical axis; on the other hand, it constructs a vertical centrifugal axis. The horizontal/longitudinal axis provides a processional lane of movement. Position of the altar could be interpreted as not to be seen at a distance, but to be approached from a distance. The existence of the fountain of holy water at the entrance way is seen as the point of departure in this movement. Processional organization of space, focus on the altar as a place of sacrifice is an emphasis on the immanence of God and the transcendence of human experience.

The longitudinal axis as the processional lane of movement in Pugeran church is following the concept of Javanese traditional houses, that is building should be oriented to the south, thus the entrance way is on the south and the altar on the north. This local preference differs from the honored side orientation of the traditional church, i.e. east and south, north and west are less favored. Facing eastwards for worship, in the direction that the sun raises, is a practice that is probably pre-Christian, and there are number of biblical references to God in the east. The longitudinal axis of most churches is therefore west-east, with the entrance on the west side, and the altar on the east. East as recognized as the location of the Garden of Eden where humankind began, as the direction from which Christ would come at the Last Judgment, and most obviously as the direction of sunrise [14, 15].

The aesthetics character of Pugeran church in Javanese art and architecture, the concept adopted will determine its capacity to evoke a sense of the interplay of transcendence and immanence, especially for the local community. Form-meaning relationship in a deep level, showing that sacredness of a church is not only concerning conceptions of the architect or those who planned, but also it is dealing with the appropriation of churches by generations that view and respond to

them and experience them. A church can be marked by a sacredness not of the separation of the sacred and the profane, but rather of association, its connectedness to images and narrative that bear on the deepest questions of human life. Then, our perception, Christianity knowledge, cultural background and experiences relates to the sacredness of a church architecture.

## 4. Conclusion

The semiotic analysis of architecture is offering to explore the structure of signification that makes any reading of form-meaning relationship possible. Analyses of the case study — the Pugeran church — is constructed within the context of the sanctity of a church. The architectural form that signified the expression of the inculturation spirit in the case study, showed that the design was following a traditional Javanese architecture. However, not all features were relating to the content of the church architecture in terms of liturgical activities and symbols.

The study demonstrated that the structure of signification which related the plane of expression — the form, and the plane of content — the meaning, exists in certain layers. At the discursive level, the relationship of form and meaning of architectural inculturation showed a universal meaning. People recognized and interpreted it as a Catholic church perceptually, mostly through the non-architectural aspects, i.e., ornaments. Their discursive memories played a great role, which related the architectural form with patterns in mind about the arrangement of a church, and then confirmed the building appearance as a place of worship.

At the next level, architectural form was perceived functionally for the communities or for the Catholic worshippers to participate in the rite and liturgical activities. Architectural form of the case study — the ground (batur), columns (soko), roof (empyak), ornaments — that lead the audience to focus in the attitude of prayer, was itself the great symbol of the

sacred place of worship. This is a communal meaning, for individuals and communities with Catholic background; some sacred symbols which were grounded in Christian tradition are possible to give rise to sanctity of the place.

In the deep level, the vertical axis and horizontal axis formed the sequence of sacredness. Some typical Javanese architectural form and ornaments might be very meaningful for those parishioners coming from the Javanese culture. Thus, a visitor might sense something of its symbolic function as a place charged with meaning; this relationship dealt with perception, religious structure and culture.

Meaning in architecture can be understood as the result of an intimate connection that engaged people perceptually and intellectually. Sacred architecture often provided potent settings to facilitate the deep internal and external connections intrinsic to the religious experience, and therefore need to be understood in this context.

#### References

- [1] A. B. Sinaga, *Gereja dan Inkulturasi*, Kanisius-Jakarta,
- [2] H. J. W. M. Boelaars, Indonesianisasi: Dari Gereja Katolik di Indonesia Menjadi Gereja Katolik Indonesia, Kanisius- Jakarta, 2005.
- [3] R. S. J. Hardawiryana, Sacrosanctum Concilium: Seri Dokumen Gerejani no 9, Departemen Dokumentasi dan Penerangan KWI, Jakarta, 2013.

- [4] F. H. Suseno, *Beriman dalam Masyarakat: Butir-butir teologi Kontekstual*, Kanisius-Jogyakarta, 1993.
- [5] A. A. R. Crollius, Inculturation and the meaning of culture, *Gregorianum* 61 (2014) (2) 253-274.
- [6] E. Martasujita, Misa Inkulturasi. Liturgi Autentik dan Relevan, in: Bernardus B. U., Georg K. (Eds.), Ledalero-Maumere, 2006.
- [7] S. Schloeder, Sacramental architecture: Body, temple, city, Journal of Interfaith Forum on Religion, Art, Architecture (2003) (3) 7-10.
- [8] Soesanta, De H. Hart-Kerk te Poengeran, *St Claverbond Magazine*, 1935.
- [9] D. Amalorpavadass, Gospel and culture: Evangelization and inculturation, translated by Marin Warus: Gereja Berwajah Asia, in: G. Kirchberger (Ed.), *Mission Theology for Our Times Series*, No. 11, Bangalore, 1987.
- [10] G. Lukken and M. Seale, Semiotics and Church Architecture, The Netherland Kok Pharso Publishing House, 1993.
- [11] K. Kutznetsova, Architectural space and greimassian semiotics, *Socialiniu Mokslu Studijos-Societal Studies* 3 (2011) (40) 1269-1280.
- [12] B. M. Katilius, The semiotics of A. J. Greimas: An introduction, *Lithuanian Quarterly Journal of Arts and Sciences* 36 (1990) (3) 1-11.
- [13] A. Ronald, *Nilai-nilai Arsitektur Rumah Tradisional Jawa Yogyakarta*, Gajah Mada University Press.
- [14] R. Taylor, *How to read a church*, New Jersey-Hidden Spring, 2003.
- [15] Kieckhefer, *Theology in Stone: Church Architecture from Byzantium to Berkeley*, Oxford-Oxford University Press, 2004.