

# READING THE SIGNS ON MOSQUE ARCHITECTURE:<sup>1</sup>

The Study of 8 (eight) Archetype items of the Persian Traditional Architecture

Referring to Sunan Ampel Mosque Surabaya-East Java, Indonesia

*By : Imam Santoso\**

*Lecturer of Architecture Department*

*University of Merdeka Malang – East Java, Indonesia*

*E-mail: [Imasant\\_ars@yahoo.com](mailto:Imasant_ars@yahoo.com)*

## Abstract

The study of signs become so important, because everthing can be a sign. As the field of semiology and semantics is essential to the understanding of the origin of words and meaning of architectural concepts. The studied had 8 (eight) items of archetype by Nader Ardalan views from Persian Traditional architecture. The 8 items are ***the recapitulation of paradise (RoP), sacred mountain (SM), transition (T), hierarchic demarcation (HD), multiplicity (Mtp), unity (Ut), reintegration (Rtg), and ontological axis (OA)***.

Louis Hjelmslev read the signs of language using semiotics model. The Hjelmslev model are *Content (C)* and *Expression (E)*. The C consist of Content-Substance (CS) and Content-Form (CF), and Expression consist of Expression-Substance (ES) and Expression-Form (EF).

The study tries to read the signs of Masjid Sunan Ampel (MSA) by using the two approaches from different perspectives mentioned above. The method that used to read these signs is depictive criticism by describing pictures (architectural drawing and photos that taken when observing the object). The former approach (Nader Ardalan) results only 1 (one) item : ***recapitulation of paradise (RoP)*** that cannot be read. The latter approach (Louis Hjelmslev) results that reading signs of SAM only works on C and E. Attempting reading on CS, CF, ES and EF is difficult to result signs, because this effort need to elaborated carefully on continued study.

Keywords : mosque, signs, archetype, form, style, content and expression

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\*\* Lecturer of Architecture Dept. on University of Merdeka Malang, Jawa-Timur

*“Al Qur’an adalah jamuan Tuhan,” demikian bunyi sebuah hadis. Rugilah orang yang tidak menghadiri jamuan-Nya, dan lebih rugi lagi yang hadir tetapi tidak menyantapnya. (Quraish Shihab: 1999)*

## **Pre-Discourse**

Architecture is language, and language is sign. When architecture can be considered as a language, meaning that it can be understood as sign. From Al-Qur’an, Hadist and Architecture, we can create a language which contain a concept of moslem’s prayer building, that is mosque architecture.

When we talk about architecture, moreover mosque architecture, it means that we talk about building that has certain contents or messages from certain religious values. A good architecture is an architecture or a building which carries its own spirit or soul; a building which has capability in communicating and representing what and who it is. In the architectural world, it is natural if we need some buildings’ signs or symbols that can be ‘read’ and understood as if they are a language. Architecture as a language should be understood as if it is a reading material. Thus, behind a piece of architectural work, there must be a certain message or purpose that the designer tried to convey. A piece of architectural work can also attract one’s interest, move one’s heart, arouse one’s memory, open the aesthetic view, and therefore make us believe in the psychological expression.

When architecture is accepted and admitted as a realization of idea, life style, hope, and dimension processing toward place and time, then architecture is a discourse. Sign in architecture is a discourse and can be implemented as an implicit or explicit form.

The distinction of symbols as sign by Hjemslev (Noth, 1990) which are *expression* and *content* can not be analyzed further into the smallest component. The sign can be interpreted as “a unity emerged from the relationship of *content* toward a unity emerged from *expression*.” Sign that has the shape of symbol can be changeable (ex: traffic lights), iconic, or indexical. As an additional note, Hjemslev said that word from a language is not a sign, because the language itself has its own specialty of double articulation. He also confirmed that *expression* consists of *phoneme* and *morpheme*, while *content* only consists of a conceptual unit of some matters.

## **Object’s Historical Side**

According to Murtiyoso (1994), Masjid Sunan Ampel (MSA) has its own historical side. MSA was built by Raden Rahmatillah or Raden Rahmat (then he is known as Sunan

Ampel) in 1450 AD. Up until now, MSA has been experienced several expansion and renovation.

Raden Adipati Aryo Cokronegoro was the one who did the first expansion, by adding a building on the north side of the old building. In the year of 1926, Adipati Regent Raden Nitihadi Ningrat did the second expansion. The third and the fourth expansion have been done in the year of 1954 and 1974. The next expansion and renovation was done by the designing team of Architecture Department, Institute of Technology 10 Nopember, in several phases.

This MSA lies in the northern part of Surabaya, in Ampel area to be exactly. This area once was the bank of Kali Mas and played an important role as the center of commerce and traffic to the center of Majapahit Kingdom. This was a very strategic place for the main gate of the kingdom.

### **Subject Study**

Speaking about the sign or the sign's theories, we realise that it will give certain interpretation or understanding into each person's mind. This is likely to happen because there are so many interpretation about the term of signs used by two different expert, *Nader Ardalan* and *Louis Hjelmslev*. Nader Ardalan is a Persian architecture expert who differentiates signs as traditional form using : *archetype, form, and style*. On the other hand, Louis Hjelmslev is a language expert who implies "*double partition*" model to differentiate *signified* and *signifier* with the terms that he uses, which are *expression* dan *content*.

It is recognised that there are a lot of signs on mosque architecture (as visual shape) that can be read while exploring the mosque. In this case, if we want to read the signs from Ardalan's point of view, we should explore the mosque object toward archetype, form, and style. Then, we analyse the result of this exploration by using Hjelmslev semiotic's model, so in the end we will know whether we can put Hjelmslev theory in a line with Ardalan theory.

In reading the signs (which can be seen or not), we also need a special way and intellectuality. One way to recognise the signs visually while we are exploring the mosque is by looking at the visual shape of the object. In this activity, we use descriptive critic method (Attoe, 1978) which is done through depictive description by describing the reality of the case object. Then, we will relate it with the theory of Ardalan. The use of

descriptive critic method here is to give a basic, clear and objective guideline in analysing the case and reading the result's term. (see: table 1, table 2 and table 3.)

## **Reading the Result of the Study of Traditional Form on Masjid Sunan Ampel (MSA) with Louis Hjemslev's Semiotic Model (LHSM).**

*Signifier (sound - image) and signified (concept) are the two sides of Saussure's sign model. Hjemslev renamed them expression and content and called these two sides planes of the sign. Both the expression plane and the content plane are further stratified into semiotic form and substance. This makes four strata: content – form, expression – form, content- substance, and expression – substance.*

From the statement above, Nott (1990) said that *signifier* (voice – imagination) and *signified* (concept) are two sides of Saussure's sign model, whereas Hjemslev considered it as *expression* and *content*. Then, *expression* and *content* divided into *form* and *substance* semiotic which result in 4 levels: *content – form, expression – form, content – substance, expression – substance.*

Those 4 levels can be understood as follow:

### *Content:*

- *Content-Form* (CF) as a *signified* is the compilation of all planning process that will be transformed into the work or form of architecture.
- *Content-Substance* (CS) as a *signified* comprises all values and philosophy that strengthen the form concept of architectural work.

### *Expression:*

- *Expression-Form* (EF) as a *signifier* is *content-form* expressed into the building's physical form as a whole to its components.
- *Expression-Substance* (ES) as a *signifier* is the meaning that lies behind the expression-form of architectural work.

According to Sudarajat (1992), the Hjemslev's Semiotic Model is a structural model developed in the first stage (*content-form* and *expression-form*) which has ability to explain the sign system and static final product of nurtured-environment to certain level, but still cannot be used to explain how the understanding and creating process occurred. To obtain the final result of this paper, it's necessary for us to read the signs on MSA architecture through Louis Hjemslev's Semiotic Model (LHSM) after we analyse it with Ardalan's traditional form concept (*Archetype, form, and style*). The purpose of this reading is to explore more on the things that considered 'hidden' and has a relationship with *content* and *expression* on MSA.

From the reading of table 4 above, it can be concluded that through Ardalan's 8 traditional concept we find that there are some compatibilities and similarities in some discussion, which are *archetype* that refers to *Sacred mountain, transition (the way), hierarchic demarcation, unity, reintegration and ontological axis*. Still, there are some differences caused by the differences of culture, time, and weather, one of the difference

is in understanding sacred mountain. In Persia, sacred mountain considered as *socle (takht)* on mosque (*minbar*), while in Masjid Sunan Ampel (MSA-Indonesia) the understanding of *sacred mountain* become tajug roof. This is likely to happen because each country has its own historical background. In Indonesia, especially in MSA, the tajug roof with its trapezoid triangle structure is centered in one direction and become wide in its four basic angle and considered as pyramidal form, close to the parable of a mountain. In the era of Pre-Islam in Java (Indonesia), mountain considered as a sacred thing, it became an *axis* (Mountain Agung in Bali used as the orientation; in Jogjakarta Kingdom, axis that is used have one line between the mountain and the south ocean). Therefore, not all of the Ardalan's way can be used, the extrim one is about the *recapitulation of paradise*. In Indonesia, during the era of Pre-Islam, people built and arranged beautiful garden and courtyard (*taman Sari, Sunyaragi, Sriwedari*) in order to worship the king and his family, while in Persia, people built and arranged it to worship the God.

By using the analysis process of Ardalan (Table 4) and then clarified by LHSM (table 5), we have come to the result of this study, which are:

- Through the first reading (R1) using Ardalan's way, there are some signs' compatibilities that can be read on the object, but still, we find some differences also.
- Then, the result of R1 is put into the second reading (R2) along with LHSM, and from that final result we found out that there was a restraint in reading R1 when we put it into R2, that was when content (C) and expression (E) split into content-substance (CS) and expression-substance (ES) as its following stage.

Therefore, it can be concluded that the first reading (*Content-Form* and *Expression-Form*) is able to explain the sign system of one static final product of MSA. But when the reading is continued to the next stage, we encountered some difficulties because in this stage, we dealt with the philosophy and meaning that lies behind the architectural work, that is why we still cannot explain how the process of understanding and creating the MSA happened.

## Analysis

According to Ardalan, the traditional building (architecture) in Persia which is occupied by the majority of moslem people can be seen in the following table (1):

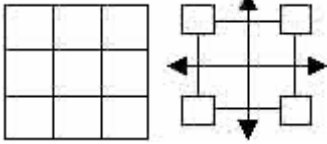
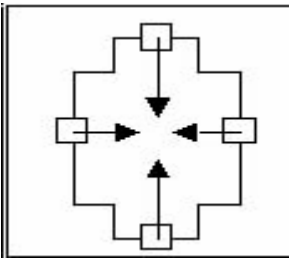
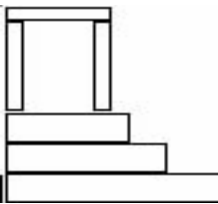
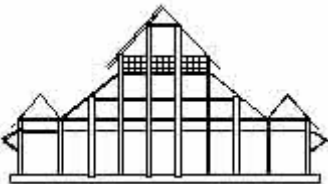
Table.1. Traditional Form of Persian Building (source : Ardalan, 68:1979)

No.	Archetype	Form	Style
1.	The Recapitulation of Paradise (RoP)	-Garden (Bâgh) - Courtyard (Hayât)	Bâgh-I-Fin Madrasah-yi-Nimawâr
2.	Sacred Mountain (SM)	Socle (Takht)	Takht-I-Jamshid (Persepolis)
3.	Transition-The Way (TW)	(ivân) Porch (Talâr)	Masjid-I-Jâmi' Chilil Sutun Sanctuary Portal
4.	Hierarchic Demarcation (of time and space) (HD)	Gateway (Darvâzah)	'Ali Qâpu
5.	Multiplicity (Mtp)	Room (Tâq)	Madrasah-yi-Nimawâr
6.	Unity (Uty)	Sphere Dome (Gunbad)	Masjid-I-Jâmi' North Dome Chamber
7.	Reintegration (Rtg)	Chahâr Tâq	Sasanian Châhar Tâq Masjid-I-Shah main Sanctuary Chamber
8.	Ontological Axis (AO)	Column (Mil) Minaret	Manâr-I-'Ali

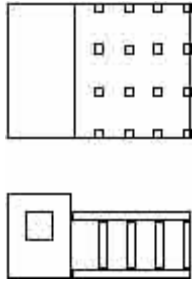
Table.2. Traditional form of MSA Surabaya (surveyed by : Imam Santoso,2002)

No.	Archetype	Form	Style
1.	The Recapitulation of Paradise (RoP)	-	-
2.	Sacred Mountain (SM)	Main Roof	Tajug Roof of MSA
3.	Transition-The Way (TW)	Porch	-surrounding middle room (forming 'U' letter)
4.	Hierarchic Demarcation (of time and space) (HD)	mosque's main entrance	-Regol (the entrance of ) the old Ampel mosque -Kori (door)
5.	Multiplicity (Mtp)	-room under the main roof	-room's position is in the middle, center, mihrab oriented, formal, pendopo (attached open veranda) -4 soko guru (pillars)
6.	Unity (Uty)	Mosque's roof	Tajug Masjidan
7.	Reintegration (Rtg)	Mosque's roof + structure column	Tajug roof +soko guru (pillars)
8.	Ontological Axis (AO)	-tower -column	-lighthouse -4 soko guru (4 main pillars) -many columns

Table 3. Geometric Traditional form in Persia and Masjid Ampel Surabaya

Geometric in Persia	Geometric in Masjid Sunan Ampel Surabaya, Indonesia (Java)
<p><b>Recapitulation of Paradise</b></p> <p>Garden – it is said that ‘God is the reincarnation’ shown by the movement that comes out from the earth by the soul to cover the heaven. The 4 arrows below show the movement that comes out from earth.</p>  <p>Courtyard – is the reincarnation of form orientation that comes in from the microcosmic (world), and considered as ‘the hidden’</p> 	
<p><b>Sacred Mountain</b></p>  <p>Socle/Takht, is the heightening of floor drawn as pulpit. It has a rectangular structure supported by steps cube (stairs). The bottom cubes are longer than the rectangular structure above it.</p>  <p>The picture of mountain is identical with the form of tajug roof, it has two quadrangle pyramids structure which are piled up, the bottom pyramid is angular while the top pyramid has more acute angle.</p>	

### Transition – The Way

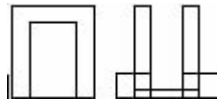


Porch plays the role of transition room (from outside room to middle room). It has a solid cube structure with a hole related to flat roof with transparent wall full with support column.

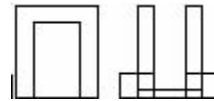


Porch surrounding the middle room (forming the 'U' letter), transition, semi-closed. The structure of main Tajug roof is supported by the saka guru (main pillars), and in the porch side, supported by saka penanggap.

### Hierarchic Demarcation

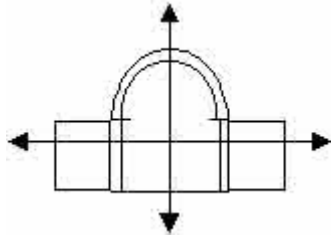


Gateway (Darvazah), is a solid cube structure holed from the front side to the back or two pieces of big column stand side by side functioning as the entrance.

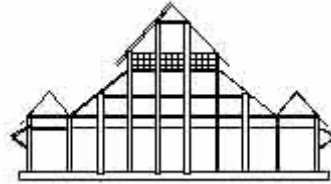


Regol (Kori Agung/ Paduraksa), is a solid cube structure holed from the front side to the back in the shape of corridor, functioning as the entrance/gate. Or looks like a temple which is split into two (bentar)

## Multiplicity

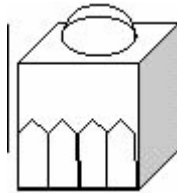


Room (taq) – as a complex form with cube shape, which has an inside and outside movement toward one point in the middle. It has a dome structure supported by cube.

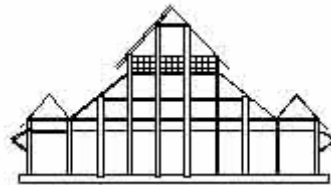


Room under the main roof, its position is in the middle, center, mihrab oriented, formal. It has a combination structure which is pyramid supported by cubical structure (saka guru).

## Unity

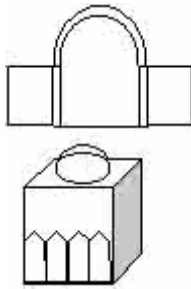


Sphere/ dome  
It has a dome shape on the top and supported by cubes (muqarnas) under the dome.



Tajug Roof - Mosque  
It has two pyramids structure which are piled up. The bottom pyramid is angular, while the top pyramid has more acute angle.

## Reintegration



### Chahar Taq

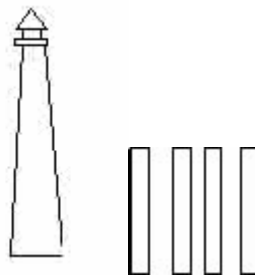
It is the 'mihrab' of the mosque, the pond of the garden, or the tomb of the Prophet. As a shelter of spiritual room of birth, life, and death. It has a combination structure of round/circle and cube, like a dome supported by 4 saka guru (main pillars).



### Mosque Roof dan Column

Spiritual room is the middle room under the main roof, surrounded by saka guru (pillars). It has a combination structure between Tajug roof with 2-pile pyramid and saka guru (main pillars) as its support.

## Ontological Axis



### Column (Mil), Minaret

Column and minaret is the analogy of the letter 'alif' in Arabic writing. Minaret is functioning as symmetrical balance, spacial definition and numbers theory. The structure refers to stick/pillar with round diameter through the center which stands straight and solid.



### Column, Tower

Column symbolised the strength of a building. Tower shows balance. The main columns called saka guru and the porch columns called saka penanggap. Saka guru has a straight, solid wood stick structure, while saka penanggap has a round stick structure with brick material and white paint. Tower has a lighthouse structure, stick which is pointed in the top side, with wall material.

Table.4. The Result of the Study of Traditional Form on MSA.

No.	Archetype	Form	Style
1	The Recapitulation of Paradise	-	-
2	Sacred Mountain	Main Roof	Tajug Roof Masjid Sunan Ampel
3	Transition-The Way	Porch  -wudhu room	-surrounding middle room (forming the 'U' letter) -transition/marginal, semi-closed, tend to be more on the outside -well
4	Hierarchic Demarcation (of time and space)	Mosque's Main entrance	-Regol (the entrance of) old Ampel Mosque -Kori (door)
5	Multiplicity	-room under main roof	-room's position is in the middle, center, mihrab oriented, formal, pendopo (attached open veranda) - 4 soko Guru (pillars)
6	Unity	Mosque's roof	Tajug Masjidan
7	Reintegration	Mosque's roof + structure column	Tajug roof - Soko Guru
8	Ontological Axis	Tower Column	Saka guru, saka penanggap Lighthouse

Table .5.The Reading result of LHSM on MSA

No.	Archetype - (Signified - Sfd)	Content	Form	Style (Signifier – Sfr)	Expression
	CF (Content-Form)	CS (Content-Substance)		EF (Expression-Form)	ES (Expression-Substance)
1.	The Recapitulation of Paradise (RoP)	-	-	-	-
2.	Sacred Mountain (SM)	Heaven (Hv)	Main Roof (MR)	Tajug Roof M S A (TRMSA)	Brunjung Gajah
3.	Transition-The Way (TW)	The Way Tariqah (TT)	- Porch (Prc)  - wudhu room	-surrounding middle room (forming the 'U' letter toward middle room) -transition/ marginal, semi-closed, more on the outside (U Type) -well	-to take care -to protect, to give the feeling of comfort  - Life
4.	Hierarchic Demarcation (of time and space) – (HD)	Teritorial (Trl)	Mosque's main entrance	-Regol (the entrance of) old MSA, Kori (door)	Mouth, channel (current)
5.	Multiplicity (Mtp)	Sky, Universe	-Room under the main foor	-room's position is in the middle, center, mihrab oriented, formal, pendopo - 4 soko Guru (main pillars)	The hereafter (the beyond), Macrocosm (Mcr)
6.	Unity (Uty)	Ta'wil, Circle	Mosque's Roof (MR)	Tajug Masjidan (TM)	Brunjung Gajah (BG)
7.	Reintegration (Rtg)	Stability (Stb)	Mosque's roof + structure column (MR+C)	Tajug Roof - Soko Guru (TR-SG)	Brunjung Gajah (BG)
8.	Ontological Axis (OA)	Alif,number 1 (One)	Tower Colum (TC)	Saka guru, saka penanggap, Lighthouse	Intercolumtin (ITCM)

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