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PERCEPTION OF THE INHABITANTS AND FENG SHUI CONCEPT FOR THE BALINESE TRADITIONAL HOUSING THAT ADAPTS NAWA SANGA SPACE CONCEPT

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ABSTRACT

In this globalization era, many houses have adopted the Feng Shui concept of building. In Bali for instance, Nawa Sanga, a concept similar to Feng Shui; with the same goal of prosperity and health for the people who live inside the house has been adopted. To achieve this goal, there are factors that have to be put into consideration, for instance; human perceptions and the nature of the human in terms of career/occupation, education, religion and age; as well as building zone and the location of the main door. This thesis seeks to investigate further the connection between the concept of Nawa Sanga and Feng Shui. Feng Shui concept is universal and can be adopted in any buildings or houses, including the Balinese Traditional house where the Nawa Sanga concept has already been embraced. To be able to concretely find the connection and the similarity between these two concepts, a Feng Shui template that measures the Nawa Sanga concept is needed. For the purpose of this investigation and research, the sample was taken from various locations in Bali namely: Candidasa, Abang, Tejakula, Bangli, Ubud, Singaraja and near Batur lake in Kintamani. All of the locations above are surrounded by Agung Mountain. Further connections between human perceptions and Feng Shui template could proof that the concept of Feng Shui is universal and it can be adopted for building traditional Balinese houses or any other houses.

Keywords: Feng Shui and Nawa Sanga.

1. INTRODUCTION .

1.1 Background

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Recently there are many Feng Shui books that has been translated to languages other than English such as French and German (Skinner, 2003). This trend shows that there are growing demands in the market for the people who are interested in the Feng Shui Concept, especially Feng Shui for the House. However, this trend needs to be investigated further.

According to Flying Star Feng Shui Philosophy, Science, Application and Corrections by Dr. Ong Hean-Tatt Phd and Grandmaster Francis Leyau, it is stated that.

"The basic Feng Shui principles applied by notables of the land were essentially the same through the ages. This is very important point, which could be used as criterion to judge the validity of Feng Shui principles handed down to modern times" (Tatt dan Leyau, 2006:3).

"Feng Shui is also a universal skill practiced, and still practiced, in many other ancient cultures, even in the west, where it is better known as "geomancy" (Tatt dan Leyau, 2006:6).

This statement is also supported by Vincent Koh's writings in his books of Basic Science Feng Shui. He stated that:

"Feng Shui is the art of live that brings the harmony with the environment, a good Feng Shui practice in the houses or working space will contribute in making a harmonic, healthy and prosperous/happiness environment.(Koh, 2005:1).

From three of the statements above, it is mentioned that Feng Shui has been utilized for centuries, even in the Western Countries. Therefore, Feng Shui concept is universal and it is utilized to help bring the health, happiness and prosperity for the inhabitants.

How this concept will be adapted in Indonesia, especially in Bali will be discussed below. There are several

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views that stated as follows:

- 1. Asta Kosala Kosali is the Balinese Feng Shui and it is the methods, the layout of buildings and the layout of a place for building the houses and sacred building in Bali. This concept corresponds with the Balinese Philosophy, Ethical and Ritual by highlighting the concept of embodiment, ground-choosing, a good day for building the houses as well as the execution to build the house.(http://cvastro.com/astakosala-kosali-fengshui-bali-tata-letak-ruang-rumah-bali.htm, 2011).
- 2. Nawa Sanga is the concept of nine wind directions and it gives a Balinese people daily guidance. In Nawa Sanga, the North and South wind directions is called Kaja-Kelod while the East and West is called Kangin-Kauh. For Balinese people, the directions of Agung Mountain and the directions of the sun-rise has become their guidance in locating the houses. They also symbolize North as Lord Vishnu, South as Lord Brahma, East as Lord Iswara and West as Lord Mahadewa. (http://www.pdaid.org/library/ index.php?menu=library&act=detail&Dkm_ID=20091657, 2011)
- 3. Tri Hita Karana which literally means Tri: Three, Hita: prosperity, goodness, happiness and sustainable and Karana: elements / resource. Therefore Tri Hita Karana means Three elements that creates a good, prosperity and happiness in lives. These elements are: Atma- which means soul, Prana- which means energy and Angga- which means bodies. (Majelis Lembaga Adat, 1992:15).

According to above three view points, it could be stated that the purpose of Asta Kosala Kosali and Nawa Sanga Concept is to be able to achieve the harmony between the inhabitants of the house and their environment. Both of the concept purpose has the same purpose with Feng Shui.

The layout of space concept Sanga Mandala was derived from the nine God manifestation in maintaining the balance of the nature to achieve harmony in live- Dewata Nawa Sanga (Meganada, 1990:58). Sanga Mandala concept is based on the traditional Balinese concept of the cosmology orientation to the embodiment of harmonic living (Budihardjo, 1986).

Hence it could be concluded that:

- 1. As previously Stated Nawa Sanga and Feng Shui concept is derived from one philosophy, philosophy in life in the form of a belief that could be described with the perception theory about human viewpoints and opinion about things.
- Feng Shui has a purpose to make the inhabitants healthy and proserpus (Koh, 2005:1), while Nawa Sanga in Tri Hita Karna has the same purpose according to their name discussed above. There is a strong similarities between this two concept, however for the purpose to be achieved, it will depend on the inhabitants perception.
- 3. As per discussed above, Tatt and Leyau has pointed out the Universal Concept of Fengshui (Tatt dan Leyau, 2006:6). The similarities between the philosophy and the purpose of Nawa Sanga and Feng shui could be associated with this concept and could be adopted in the Balinese Traditional housing and Nawa Sanga space layout.

1.2 Problem Identification

The foremost important concept of Nawa Sanga is the Building Zone, especially the main entrance (Eko, 1986), Inhabitants as the focal point (Adhika, 1994), Building Orientation (Fred, 1990), wind and natural light circulation (Dwijendra, 2003:8) and the external factor of the building (http://cvastro.com/asta-kosala-kosalafengshui-bali-tata-letak-ruang-rumah-bali.htm, 2011).

In the Feng Shui Concept, the foremost important concept is also the Building Zone (Skinner, 2003 & Koh, 2005), the main entrance (Liem, 2009 and Yi, 2007), Inhabitants as the focal point (Chandra Mulyana, 2007), Building Orientation (Chandra Mulyana, 2007 dan Skinner, 2003), wind and natural light circulation and External factor of the building (Lim 2009 and Yi, 2007).

From the findings above, it is proven that the Nawa Sanga and Feng Shui has the same concept in their foremost important point such as: Building Zone, entrance directions, building directions, wind and light circulation, external building factors and it also share the same concept of Inhabitants as their focal point.



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Adapting the correct Nawa Sanga concept in the Balinese traditional housing is very much depending on the human perception. Human perception is influenced by several factors such as: education level, Career/Occupation, religion and age. The combination of the concept and the human perception could identify how far the building zone and the entrance direction could impact the health and the prosperity of the inhabitants.

For the traditional housing in Bali that utilized Nawa Sanga space concept, it requires a template to bench mark the result to compare with the Feng Shui concept. If the template and the perception from the Building Zone and entrance directions shows similarity between both concepts adapted in the Balinese Traditional Housing, it could be concluded that the Feng Shui concept is proven to be universal.

Hence, based on the theory and the hypothesis above, the findings of this thesis will be about:

- The Universal Value of Feng Shui in the Balinese Traditional Housing that adapts Nawa Sanga.
- The perception of the Inhabitants about the adaptation of Nawa Sanga in the traditional housing.

According to the Theory (please kindly refer to page 7 of my thesis) combined with several resources, the findings could be summarized as follows:

- Correlation variable of Feng Shui, architecture and Nawa Sanga elements
 This correlations has the purpose of:
 - a. To figure out the score range for the architecture/Nawa Sanga variable by using Feng Shui
 - b. To obtain pattern measurement of Feng Shui (appendix 1)

Table 1. Correlation variable of Feng Shui, architecture and Nawa Sanga elements

Information	Architecture (A)	Feng Shui (F)	NawaSanga (N)	Variable Corelations
. Building Mass Entrance Directions	Pararel with the Road	Not pararel	Pararel with The road	There is corelation between A & N, however, in F the entrance is not pararel with the road and it does not impact the score of the feng shui
2. Zoning	Based on the sun analysis, private, semi-private and public	Based on Flying Star and West-East grouping	Based on Kaja Kelod/ TeGeh-Lebah and Kangin-Kauh	There is a corelation between F, A and N. Hence, there is no impact on the score based on the Fengshui
3. Stairs	Based on Optrede and Untrede Theory	Based on the multiple of 5 and 1+2	Based on Multiple of 3	The correlation could be achieved as F & N will have the same number of multiplication. The multiple score should be the same with the Nawa Sanga

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Information	Architecture (A)	Feng Shui (F)	NawaSanga (N)	Variable Corelations
4. Building Colour	Based upon the request from the Client or the Architect	Based on the wind directions	For the purpose of the religion ceremony-linked with directions	There is corelation between F, A and N. However there is the usage of A & N Hence, there is no impact on the score based on the FengShui.
5. Wind Circulation and lighting	Cross Ventilation and natural lights	Cross Ventilation and natural lights	Cross ventilation in the middle of Mass/ Natah	There is corelation between F, A and N. Hence, there is no impact on the score based on the Feng Shui
6. Kitchen	Near the Service area	In a good location	In the East-West and/or South West direction, depending the Kaja-Kelod/ Tegeh-Lebah and Kangin-Keuh	There is corelation between F, A and N for the location of the Kitchen. Hence, There is no impact on the score based on the Feng Shui
One door meets another door and the size of the door	There are no rules regarding the measurement of the doors in meters	Cross Ventilation- The measurement is converted to Meter	For the View, The size of Depa is converted to Meter	There is corelation between F and N . In terms of the distance between one door to another , there is corelation between A, F and N. Hence, There is no impact on the score based on the Feng Shui
II.Environmental Problem 1. The house is located in the same direction of the road	No Problem- The location only act as the orientation	Because the wind is very strong, this could be very dangerous	Problem- The location is not good	There is corelation between F and N, in terms of the house location locared in the same directions of the road, it is not desirable. There are no impact on the score based on the Feng Shui
1. Hill and Contoured land	Aesthetics score and has natural potency	The back part of the house should be high and the bottom part of the house should be low	Adapting according to the Kaja-Kelod/ Tegeh- Lebah concept.	There is corelation between A, F and N For the Hill/Contoured land. Hence, There is no impact on the score based on the Feng Shui

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Information	Architecture (A)	Feng Shui (F)	NawaSanga (N)	Variable Corelations
3. Sea or Ponds	Plus point as it has the best View	Plus point as it has the best View and the source of good energy	Plus point as it has the best View	There is corelation between A, F and N, Hence, There is no impact on the score based on the Feng Shui.

Source: (Private Data, 2011)

2. Perceptions

The variable for the perceptions as follows:

- The interest and the attitude could be grouped according to the variable perceptions of Health and Prosperity.
- The background and the experience could be grouped according to the variable perceptions of Education, Career, Religion and Age.

2. METOHODOLOGY

To be able to properly research the findings, this thesis will be utilizing both Quantitative research and Descriptive research by giving the score for the variable in the measurement of the Feng Shui correlate it with the perception variable to produce the outcome of whether the Feng Shui is Universal or Not Universal.

2.1 Population and & Sample

The population of this thesis is the Idifine Population (Gulo, W. 2010:77). This includes all of the traditional housing that adapts to Nawa Sanga in Bali in one certain location and it is heterogeneous. There are also purposive sample, there are 30 samples that will be collected with certain rules as follows:

1. Location where the sample was taken



Figure 1. Limited population for the traditional housing that adapts Nawa Sanga Source : (Goggle earth, 2011)

This Purposive sample was taken heterogeneously at the local traditional villages that have traditional housing with Nawa Sanga. There are 30 sample taken, location and details will be elaborated as follows;

- Gianjar area 4 samples
- 2. Candidasa area- 4 samples
- 3. Abang area- 4 samples
- 4. Tejakula area- 3 samples
- 5. Bangli area- 5 samples
- 6. Ubud area- 4 samples
- 7. Singa Raja area- 5 samples.
- 8. Near Danau Batur Kintamani area- 1 sample



2. Traditional Housing with the partition as follows:



Figure 2. The layout of the traditional Housing in Bali that adapts Nawa Sanga Concept Source: (private collection, 2011)

The Traditional Housing that adapts Nawa Sanga minimally will have Zoning as follows:

- 1. Umah Maten: The master bedroom- all four sides of the wall are closed.
- 2. Pamerajan : Family prayer service room- open Space
- 3. Bale Dangin: Study room- four sides of the wall are open
- 4. Bale Tiang: Room for the guest two sides of the wall are closed
- 5. Paon: Kitchen area- four sides of the wall are open
- 6. Natah: Open space in the middle of the building
- 7. Angkul-angkul: main entrance of the traditional house with the Nawa Sanga concept

2.2 Data collection instrument

For the purpose of simplifying the findings, the table of Data collection instrument is created as follows;

Table 2. Data collection instrument

No	Research Variable	Definition	Scale	Instrument
1.	Entrance Direction	Degree of the entrance	Interval	Compass
2.	Time	Date Inhabitants date of Birth/ Date of moving to the house	Ratio	Calendar
3.	Building Zone	Template formula	Ordinal	Visual
4.	Number of stairs	Survey calculation	Interval	Visual
5.	Building Colour	Degree of the entrance	Interval	Visual
6.	Wind Circulation and pool	Location Survey	Ordinal	measurement tools, humidity and temperature
7.	Lightning	Location Survey	Ordinal	Visual
8.	Kitchen Location	Location Survey	Ordinal	Visual
9	Door facing each other and its distance	Location survey and measurement tools	Ordinal Interval	Visual
10	The main entrance of the house that is in line with the road outside	Location Survey	Ordinal	Visual
11	Contoured Land	Location Survey	Ordinal	Visual
12	Near the Sea or pool	Location Survey	Ordinal	Visual
13	Health	Questionnaire	Ordinal	Questions
14	Happiness	Questionnaire	Ordinal	Questions
15	Education	Questionnaire	Ordinal	Questions
16	Career/ Occupation	Questionnaire	Ordinal	Questions
17	Religion	Questionnaire	Nominal	Questions
18	Age group	Questionnaire	Interval	Questions

Source: (Private Data, 2011)



3. RESULTS AND DISCUSSIONS

3.1. Pattern Measurement of Feng Shui

All of the architecture data will be presented in the appendix 1. Appendix 1 will also include the sketch, drawing mass photo and detailed information about the situation of the location. These data will then be valued based on the time period and wind direction group (West-East).

After the data has been calculated, the table of summary is created as follows. During the data entrance, the total of each sample is calculated and hence the finding is 10 is the lowest number and 26 is the highest. The only question left is what is the number for the benchmark to answer the research questions? To be able to find this number, it requires an analysis with the criteria that has similarity with the housings that adapts Feng Shui concept.

Table 3. Summary from the findings of Feng Shui Measurement Patterns

Owner	Main	Additional	Outside Buildings	TOTAL
1	17	5	1	23
2	15	7	1	23
3	16	7	1	24
4	12	7	1	20
5	17	7	1	25
6	11	7	1	19
7	20	5	1	26
8	20	5	1	26
9	15	7	1	23
10	15	7	1	23
11	17	7	1	25
12	10	7	1	18
13	12	7	1	20
14	9	7	1	17
15	10	7	1	18
16	20	5	1	26
17	7	7	1	15
18	2	7	1	10
19	14	7	1	22
20	13	7	1	21
21	16	7	1	24
22	16	7	1	24
23	15	7	1	23
24	17	7	1	25
25	11	7	1	19
26	13	7	1	21
27	14	7	1	22
28	13	7	1	21
29	11	7	1	19
30	18	7	1	26
BM 1	16	2	1	19
BM 2	17	2	1	20

Source: (Private Data, 2011)



Figure 3. Pie Chart Summary from the findings of Feng Shui Measurement Patterns Source: (private data, 2011)



To ensure that this research is objective, this research pick the houses that is located near the sample and with the same template. It is the house with only one level height and has been analysed with the Feng Shui Concept. There will be two example taken, first is the design by the architect who understands Feng Shui. The result of the findings is summarized above as BM1=19 and BM 2=20and hence the 19 will be the

After the number of the benchmark is found, 5 samplings (11.6%) that is less than 19 (the bench mark score) are also found. While there are 25 other samplings (88,4%) that follows the Feng Shui measurement

From this research and its findings, It is proven that Asta Kosala Kosali Concept of Nawa Sanga has the same concept with Feng Shui (universal). This is because 88,4% has reached the same score or even larger than the Benchmark score of 19.

3.2 Residents Question of Perception

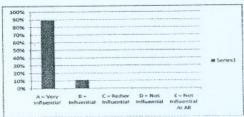


Figure 4. Blok Chart Summary from 30 Inhabitants Perception Source: (private data, 2011)

All of the residents question of perception (appendix 2) data will be summarized, Almost all of the respondents (30 Samplings) from all of the level of the education, occupations, age and Hindu stated that Asta Kosala Kosali in Nawa Sanga concept of living, health and happiness has played an important role with detail as

- Nawa Sanga in the building of the houses and the living of the inhabitants: 3 Respondents (10%) mentioned that it is influential in their lives while 27 Respondents (90%) mentioned that it is very
- Nawa Sanga in the health of the Inhabitants and in locating the Angkul Angkul/ partitioning the room: 4 (13%) Respondents stated is influential while 26 respondents (87%) said that it is very influential for
- 3. Nawa Sanga for the prosperity/happiness and the location of angkul-angkul/zoning only 3 Respondents Mentioned that it is influential (10%), 27 respondent mentioned that it is influential and (90%) mentioned that it is very influential.

From the points above, it could be concluded 89% of the total respondents mentioned the perception of the inhabitants for the Asta Kosala Kosali with Nawa Sanga has a large impacts to their lives.

3.3. Correlation from the summary of the Pattern Measurement of Feng Shui with the Residents

Question of Perceptions

Based on the discussion and findings above. The theory of Feng Shui is Universal by Dr Ong Hean Tatt Phd and Grand Master Francis Leyau in their book of Flying Star Feng Shui Philosophy, Science, Aplication and Corrections has been proven that it could be accepted. This has also justify the statement of Asta Kosala Kosali of Nawa Sanga is the Balinese Feng Shui (http://cvastro.com/asta-kosala-kosali-fengshui-bali-tataletak-ruang-rumah-bali.htm, 2011).



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4. CONCLUSION

Based on the summary of the measurement of the Feng Shui concept in the Balinese traditional housing, 88, 4% of Balinese Traditional buildings has followed the Feng Shui pattern. While based on the residents question of perceptions, 89% of them stated that the concept of Nawa Sanga has very influential in their lives and the other 11% stated that it does is only just influential their health and their prosperity.

To conclude:

- Feng Shui is Universal, especially when it is applied to the Traditional housing with the Asta Kosala Kosali in space of Nawa Sanga and based on the Inhabitants perception theory.
- The template facing to measure the Feng Shui patterns needs further development in 9th period (2024-2044) and it should not stop.
- In the 8th period template facing 2004-2024 (appendix 3), the template facing West-East group (appendix 4) should be utilized as the base for the consideration in designing the house in Bali, especially when adapting Asta Kosala Kosali Nawa Sanga space concept and Feng Shui concept.
- The test should be taken for the other kind of buildings that adapt similiar concept with Nawa Sanga in other areas during the 7th Period template facing 1984-2004 and 8th period template facing 2004-2024 (appendix 3).
- 5. 8th Period Template facing (appendix 3)combined with template facing West-East group (appendix 4) could be utilized to design the living room, bedroom, kitchen, family room and other important rooms in the house by adding up the big scores with the value to achieve the good outcome.

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