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imamz@fsrd.itb.ac.id pwardono@yahoo.com dyahmaharanee@yahoo.co.id Abstract In a small island like Bali, vernacular building was developed since the Bali Aga era whereby humans looked places to settled down. This era mushroomed around 8th to 13th century, before Majapahit Kingdom influenced Balinese cultural. Bali Aga buildings usually has a simple form considering that function to fulfill basic needs of its occupants. Nowadays the iconic Bali Aga architecture can be found in a form of hospitality buildings promoted by tourism sector. This leads to a situation where architecture should compromise to integrate two different architecture styles, Balinese and western style. The idea is to recognize and conserve the local genius by implementing its design concepts that are still relevant to current situation. This study is essential as it tries to identify the iconic elements of Bali Aga vernacular architecture through direct observation, comparing the iconic Bali Aga architecture with its implementation nowadays, and evaluating that implementation at hospitality buildings projects in Bali. This qualitative study of iconography started from the observation of Bali Aga vernacular architectural forms in order to understand the ideas behind it, and continued to analyze its representation in modern hospitality houses. This method comprises in synchronic (each Bali Aga and modern period) and diachronic ways to understand its development. From the study, it can be seen that some concepts of iconic Bali Aga architecture according to professional architects perspective can be implemented in many modern hospitality buildings design with some adjustments to meet the needs of modern culture. Key words: hospitality architecture, Bali Aga architecture, icon, tourism 1. INTRODUCTION Bali Aga rural housing is the second period in Balinese vernacular architectural history. There are four different periods of Balinese architectural history, that are widely recognized as defined by Gelebet (1978). These periods are Bali Mula (an era when humans live nomad), Bali Aga (8th - 13th AD as the vernacular period), Bali Madya (started from 14th AD when Bali was influenced by Majapahit Kingdom), Bali Colonial (started when European influences was introduced) and Bali modern (Balinese today). Aga itself means mountains, therefore Bali Aga villages spread out in its regions which has mountainous areas. Bali Aga architecture characterized by its locations, availability of building materials, technology and local belief of each region which also vary. It developed cyclical in line with attitude, casualities and the local culture. Bali Aga vernacular architecture usually has a simple form as its function to fulfill basic needs of its occupants and resulting a unique shape. (a) (b) (c) Figure 1 The spread of Bali Aga villages are in Buleleng (a), Karangasem (b) and Bangli (c) region Source :

3http://id.wikipedia.org/wiki/Kabupaten_ Buleleng (a), http://id.wikipedia.org/wiki/Kabupaten_

Karangasem (b), http://id.wikipedia.org/wiki/Kabupaten_Bangli (c) Nowadays iconic Bali Aga architectural can be seen in hospitality buildings promoted by tourism sector. Tourists visit Bali not only to enjoy natural beauty but also enjoy the local culture of Bali including architecture. The tourists would like to experience the atmosphere of original Balinese architecture with its characters and uniqueness without any changes. But they still need an efficiency and effectiveness in a modernity. The eclectic styles, combining local architecture and modern styles can be found easily as the results. Therefore, many hospitality buildings, such as cottages or villas, have been built to adopt traditional Balinese architecture (in this case, Bali Aga vernacular architecture). The demand for these kinds of facilities have been growing fast. The concepts of Bali Aga vernacular architecture, nowadays widely used as a new concept in contemporary hospitality buildings. Some professional architects consider these concepts still relevant in the contemporary situation and often implement it in the buildings that designed by them. Meanwhile modernity, different from what has been established long time ago, break mainstream identity of local traditional architectureand without any effort to dig a deeper understanding. Digging the value of Bali Aga vernacular architecture is needed before

implement and adopting it in modern hospitality buildings. In short, the concept should be formulated to mainstream the value of the past to fill the needs of current situation. 2. LITERATURE AND THEORY REVIEW a. ICON The icon definition according Charles Peirce and Charles Morris, is a sign that has a resemblance to an reference object or designee. Until now, the criteria on how similar the designated icon with its reference is still be a question. Based on the semiotic category according to Peirce, the most important criteria is firstness. Other criteria are designated object (referent), which can be either concrete or abstract objects, real or imaginary; and the relation between sign and its referent object. Sign and its referent object will have their meaning when there is a relation between them (interpretation). (Peirce said that icon is a sign which determined by its own quality. This is different from index which is highly dependent on the object, and also different from symbol which is highly dependent on consensus among its interpreter. So it can become a conclution, the icons are part of firstness category, which always describe the real situation at that time without directing to something else. While the two other signs, index and symbol become part of the secondness and thirdness category. Most signs have always been part of secondness (referent object) or thirdness (interpretation). Since the icon becomes a sign by itself and does not depend on the object, the icon considered able to describe the factual information. Icons can only be a fraction of the more complex sign. In order to characterize a genuineness of material, Peirce named it as hypoicon (sinsign iconic and legisign iconic). Icons also can be a paradox in semiotics. As a sign, icon is a part of three categories on semiotic. But as an icon, it is merely presenting as firstness (sign or represant). Peirce said this phenomenon considered to be a degeneration in semiotics. To create the meaning of sign, it has to be a part three things: represant, objects and interpretation. Since the icon have a relation with the object which not dependent on the interpreter's concentrations, the three things in this phenomenon became loss (Noth, 1995). Lastly, according to Morris, if a stimulus creates a similar response, then that stimulus is a sign itself. Obviously this sign is determined by the similar responses to sign and to an object. This phenomenon seemed to replace objects, procedures and relation. The internal process is not to make an image formation, but propensity to an act or process. So the most important thing here is how the behavior or tendency behave to the sign with its reference (Masinambow, 2001). Hypoicon or sinsign iconic (representamen formed from actual reality) and legisign iconic (representamen made of laws or rules) has definition which create from the similarities between the signs with the reference object. Peirce and Morris said there is two models of the relation between signs with its reference object, (1) the relation that has equation form (icons), sustainable linkages (index) and the arbitrary linkages (symbol); (2) relation which defined by Morris as behavioritis. Then, Peirce characterizes the icon as a sign that stands for something which has similarities, or become a part of the object designee character, or have a similar quality to the object. Icon is also about similarities an abstract relation or homology structure. Peirce said that the argument about the degree of similarity between a sign with its object, is something that can not be limited by the quality, the existence or an agreement. Icon represent of everything, as far as the icon has similarities with the object designated. Then Peirce convey the relevant interpretation called similarities in semiosis: the similarity is a character's identity and collected into a new concept (Noth, 1995) b. BUILDING AS A PART OF ICON SYSTEM Architecture consists of a content and form (shape). The content of architecture shows a specific purpose and give characters in architecture that consists: symbols of functions and technical expression. While the architecture shape shows its aesthetic. In aesthetic theory known there are some elements contained in the art forms such as point-line-shape, space, proportion, harmony, composition, style rhythm, impressionismexpressionism, texture- patern-dimensional, color and tone, psychology and shadow. The shape in architecture containing elements of space and mass, scale, light, texture and color of the material. These elements are composed to obtain beauty. The core of this composition is the wholeness and unity. According to Peirce, the icon is a sign that replace or represent an object indicated by the similarity of characters, and that object can be a real exist object or a not real object. While symbol can also represent an object but it is bound by a rule or social arrangements. And an index is a sign that identifies something (Broadbent,-). The three types of signs mentioned by Peirce has a relationship that can be described below: Likeness Association Icon Physical Index Arbitrary Symbol Figure 2 Relationship between icon, index and symbol Source: Sign, Symbol and Architecture Based on the diagram above, icon is something physical that has the character to involve with a designated object. In between, there is a similarity which this similarity makes one of them could be a sign for others. Symbol by Peirce is a sign associated with the

object and combine of various ideas which included a social agreement (being part of a particular social relations). That causes the symbol translated as a sign to replace a particular object. According to him, there is no similarity between the object designated with the symbol. Contrast with index which still considered to have little resemblance to designated object or there is still a connection between the object designated with the index although it is a tenuous relationship. An architect, Geoffrey Broadbent said that there are four types of design (including architecture), those are pragmatic design, analogic design, canonic (geometric) design and typologic design. Pragmatic design originated from prehistoric times were used by the Egyptians and still rely on the materials in nature such as soil, rocks, twigs, animal skin and so on. Analogic design often take the forms of visual analogy of building such as shapes found in nature, painting and so on. The canonic design often use the system geometry in two or three dimensions to certain rules or grips just like the design from Gothic and Renaissance era. Typelogic design more emphasis on the mental image that is considered as the best solution of a problem. Then Broadbent tried to connecting each types of design with each types design by Charles Peirce, so this type of design can also be grouped into types of icons, symbols and index (Broadbent,-) Types of Design Culturally Conditional (learned) De jure Typologic SYMBOL Observer's response Canonic ICON Analogic Direct Physiological (unconditio- nal reflex) De facto Pragmatic INDEX Likeness Physical Arbitrary connection association Figure 3 Relationship between signs and type of designs Source: Sign, Symbol and Architecture From the diagram above, it can be seen that the icon is identical to the similarity with the reference, index is identical to the physical relationship or indications something, and symbol is always associated with the agreement or convention. These are similar with the type of design including architecture, which pragmatic design is identical to index, analogic and canonic design is identical to icons which need a response from the viewer. Lastly, typelogic design is identical to symbol which created with agreements or conventions. At the time when humans still occupied the cave for their protection against natural phenomena such as rain, storms and disturbances animals, the conception of the cave as shelter began. Then when human wants to communicate the shelter to their the group, they use verbal and visual communication. Through visual communication began to create a sign that gradually became an icon which still referre to reality of existing objects. Then the icon was able to replace something that no longer just another object. Humans began to recognize the metaphor (metaphor) and slowly the icon had become a symbol. Metaphor (figuratively) identify relationships among objects. But these relations are more abstract than real. The parable of metaphor such as the uses of words "like" to express a relationship. Metaphors and images identify a patterns parallel relationship, while the other parables are analogies to identify its literal of that relationships (Snyder, 1992) 3. RESEARCH METHODOLOGY This research uses descriptive method of analysis (qualitative methodology). There is, in this study, a lot more done qualitative description of a phenomenon that occurs in a society, which is become the subject of research. The aim is not to judge the quality of the icons contained in an architectural works (the icons both in Bali Aga architecture and hospitality buildings) but rather to trace which icons of Bali Aga architecture can be found in modern hospitality buildings and the interpretation of those icons according to professional architects perspective. The author has interview some Balinese professional architects at 2015 such as Nyoman Gede Mahaputra, ST, MSc from Warmadewa University - Bali and Made Wijaya (Michael Richard White) from Wijaya Tribwana International – Bali. In this paper, the concept of Bali Aga architecture principles will be discussed which its iconal form can found at hospitality buildings in Bali today according to professional architect. The analysis will be done holistically using frame work as shown by image below. Balinese Architecture Rule ICONIC BALI AGA ARICNHMITOEDCETRUNRE HOSPITALITY BUILDINGS The value of Tourist Bali Aga Architecture Influences Figure 4 Research frame work Source : personal documents The frame work means that the repretation icons forms of vernacular architecture of Bali Aga in modern hospitality buildings, bounded by three things. First, it is bounded by the architecture named Perda Prov. Bali no.5 of 2005 which instructs that the concept of every building in Bali must reflect the identity of traditional Balinese architecture. Second, the icons in Bali Aga architecture has its own values that still understood by the community until now. So the modern architects who will adopt these icons into their design must concider and notice about its value. Third, the reappearance of the icons from past because of the encouragement of the needs in tourism industry which requires confirmation of the existence of traditional Balinese architecture. 4. RESULT AND DISCUSSION There is a distinct character which traditional houses are permanent occupation while hospitality buildings are for short term stay and have

commercial characters in its relation to tourism. Tourism sectors make Balinese architecture developed rapidly where thousands of new hospitality buildings filled the island. Balinese today's architecture is racing to attract tourist attention to make seen by tourists. Tourists are desiring to see Balinese original architecture. Many architects try to create a new concept of Balinese architecture by mixing, combining or re-interpreting traditional architecture and modern architecture. Some concepts of Bali Aga have been implemented in the hospitality buildings design, however, there are also some adjustments that can be obviously seen. Some Bali Aga architectural concepts can still be implemented in modern buildings, in different functions from its original functions, in different characteristics and different value as mentioned below in these the axamples. §? Bali Aga Village Site Plan Concept and Its Implementation

1For the Balinese, everything has its correct place in the world, with the gods being placed on higher place, the malevolent spirits being positioned in the lowest regions, and mankind placed between the two.

Massing principle of Bali Aga villages plot are simply divides the plot into two values of hulu and teben or kaja and kelod. This is the principal directions in Bali Aga cosmology. Hulu or

1kaja is defined as upstream or toward the mountains, the central mountain range in Bali being identified as the abode of the gods. Teben or kelod, lies the opposite way, downstream or toward the sea.

In sourthen

1Bali where most of population lives, kaja and kelod roughly correspond to north and south respectively or depend on

compass points just like kangin (east) and kauh (west) directions1. Bali Aga villages have one main road from kaja to kelod and the dwelling spread out on the right and left side of main road. So they have the linear concept of village site plan. This linear site plan concept adopted in hospitality buildings but without any value just like at Bali Aga village, usually as its pedestrian. For example at Four Season at Bali, they are using this linear concept as its reference, so the cottage spread out on the side of the main road. This main road does not matter whether has hulu-teben oriented or hasn't. (a) (b) Figure 5 Linear concept at Pinggan village (a) and at Four Season, Jimbaran Bay-Bali (b) Source : personal document (a) and Architecture Bali, birth of the tropical boutique resort (b) §? Angkul-angkul Concept and Its Implementation Angkul-angkul is an opening as an entry gate to the Bali traditional housing. The materials for Bali Aga angkul-angkul is usually made of compacted earthen material called tanah popolan and bamboo called sirap for its roof. Some of the angkul-angkul use alang-alang for its roof. The height of Bali Aga angkul-angkul is usually fit with or little bit lower than human height. This have a purpose, when human enter this gate they have to bend their body as tribute to householder. But now especially at modern Balinese housing and hospitality buildings, angkul-angkul's height adapted with human height and little bit higher. So in hospitality buildings, they adopt angkul-angkul from Bali Aga for just its form without any value. Not just the size, they usually change its material too. Some modern angkul-angkul use genteng as its roof. 1 Based on Bali topography, in the middle of the island lie the mountains that extends from west to east. The existence of these mountains cause Bali is divided geographically into two unequal parts namely North Bali with a narrow lowland and less sloping, and the lowlands of South Bali which has wider ramps. (a) (b) Figure 6 Traditional Bali Aga angkulangkul at Penglipuran (a) and at The Oberoi, Seminyak-Bali (b) Source : personal document (a) and Architecture Bali, birth of the tropical boutique resort (b) §? Buildings Figure and Its Implementation Some

hospitality buildings consider a basic form of Bali Aga buildings as their icon reference. Many modern buildings in Bali take a form of traditional building as their reference. For example, the form of meru roof is taken as the lobby roof's shape of Planet Hollywood-Bali. As it known, meru is one of Hindu ceremonial buildings at temples in Bali which have a holy value, while Planet Hollywood is the place which have a contradicted value from meru. So the adoption process change the original value. For the example in this case study, there is a building at Tenganan Pegringsingan-Karangasem, called bale panjang which usually taken as reference object. It has a function as place for traditional ceremonies and convocation the Tenganan Pegringsingan people who live there. This building's basic form is taken by The Serai, one of hospitality buildings at Karangasem too. So these all adoption not just change the original value, but also can change its original function. (a) (b) Figure 7 Bale Panjang at Tenganan Pegringsingan village (a) and at The Serai, Karangasem-Bali (b) Source: personal document (a) and Architecture Bali, birth of the tropical boutique resort (b) §? Bali Aga Ancient Place and Its Implementation There are many ancient places which are connected to Bali Aga history, such as Goa Gajah, Gunung Kawi and Pura Agung Gunung Raung, At Gua Gajah and Gunung Kawi, there are so many caves use as a place for meditation. And these caves are taken as an idea by Ibah, Ubud as a place for relaxing side the pool. (a) (b) Figure 8 Caves at Gunung Kawi (a),taken as an idea by Ibah, Ubud-Bali (b) Source : personal document (a) and Architecture Bali, birth of the tropical boutique resort (b) 5. CONCLUSIONS The works of Bali Aga vernacular architecture without architects (architects in this discussion mean professional architects with formal architecture education) are considered as the honest, spontaneous which creates its strong characteristics. This surely, is not to claim that the works of professional architects were not have a strong character but to emphasize that even without any formal education in architecture the works of vernacular architecture still have a strong sense of distinct characteristics and friendly to their surroundings. In addition, the works of vernacular architecture, fulfilled the needs of the people in that era. Spontaneous also does not mean that the works of vernacular architecture were built without any planning. Vernacular architecture was built based on some principles although not in detailed and advanced as modern planning. Nowadays, the contemporary Balinese architecture are seen as the answer to fulfill the needs of tourism facilities. This new architecture style uses modern materials, some are imported materials from very far location, utility with very modern technologies and have modern principles. In its development, the concept of hospitality buildings have tried to involve nature and site as the focus of its ideas. Climate considerations, culture, local genious and other aspects that are rooted locally are some considerations that have been taken into the ideas. The uses of architectural morphology from the past, in this case study: Bali Aga vernacular architecture, have flourished among architecture works. Balinese contemporary architecture creates a new paradigm born from a mix of traditional and modern architecture. However, according to professional architects perspective there are three basic things from past tradition that can not be implemented directly although some similarities can be found. Firstly, Bali Aga vernacular architecture were built by non- formal architects while the modern styles of architecture were done by architect with formally architecture educated. Bali Aga vernacular architecture were produced by traditional people to fulfill their basic needs of shelters, while modern buildings were contaminated by the idealistic thought of their professional architects and leave his architectural ego. Secondly, visual morphology from Bali Aga vernacular architecture cannot also adopted 100% by hospitality buildings. Differences in function, location, time and culture are the caused. In the past, building materials can be taken from surroundings environment, different from the situation today which all materials should be purchased in stores. In this case study, Bali Aga vernacular architecture located in the mountains and built based on local characteristics of the sites. In contemporary situation, hospitality buildings can built anywhere and anytime because technology can help challenging site to be easy to built on. Geographical factors are no longer treated as the main obstacles. Standardization can made and artificially modified with the help of technology as well. The function of Bali Aga vernacular buildings was only as settlement and its elements different from modern hospitality building. Thirdly, Bali Aga vernacular architecture was strongly related to local belief and religious systems of its users. Cosmology still became strong considerations influence the form and pattern of houses or settlements. The effort to maintain the implementation of cosmology was also strong. The location where Bali Aga vernacular tradition born which is the mountainous areas and far away from the city, keeps its tradition well maintained without or with small influences from out world. One significant point of vernacular buildings is their harmonious appearance one to another. No single building

try to dominate the landscape makes the overall cultural landscape associated friendily. In contrast, modern hospitality buildings do not consider religious belief as their main consideration. Buildings were designed and built based on economic considerations. Some analogies iconic can be found, but not related to religious belief, imitates their surroundings to house modern functions. In conclusion, iconic Bali Aga architecture concepts can still be implemented in modern hospitality buildings with some modifications. Particularly which the spirit to blend with its surroundings is still at the focus of the design principles. The spirit to blend in can be translated through the uses of natural material, natural finishing, colours, technology and constructions. Iconic Bali Aga architecture were analogues with local belief of their occupants while "contemporary Bali Aga" buildings are analogues with their environment. Although some modern hospitality buildings using Bali Aga spirit seen in eclectic design, but a better understanding of the concept can make the design more beautiful, harmonious and create a friendly associations with their surroundings. REFERENCES Abel, Chris (-): Home: Design and Architecture from Prehistory to Today, Penguin, Australia Ardika, I Wayan, dkk (2013): Sejarah Bali dari Prasejarah Hingga Modern, Udayana University Press, Denpasar Broadbent, Geoffrey (-): Signs, Symbols, and Architecture, - Creswell, John W. (2009) Research Design: Pendekatan Kualitatif, Kuantitatif dan Mixed, Pustaka Pelajar, Yogyakarta Dibia, I Wayan (2012): Taksu dalam Seni dan Kehidupan Bali, Bali Mangsi Foundation, Denpasar Gartiwa, Marcus (2011): Morfologi Bangunan dalam Konteks Kebudayaan, Penerbit Muara Indah, Bandung Harisah, Afifah dkk (2007): Eklektiksisme dan Arsitektur Eklektik: Prinsip dan Konsep Desain, Gadjah Mada University Press, Yogyakarta Heath, Kingston Wm (2006) Vernacular Architecture and Regional Design: Cultural Process and Environmental Response, Taylor & Fancis Group, New York Hill, Kerry (2000): Architecture Bali Birth of the Tropical Boutique Resort, Periplus, Singapore Kartika, Dharsono Sony (2004): Pengantar Estetika, Penerbit Rekayasa Sains, Bandung Koentjaraningrat (2001): Pengantar Antropologi I, Penerbit Djambatan, Jakarta Krier, Rob (2001): Komposisi Arsitektur, Penerbit Erlangga, Jakarta Lawson, Bryan (2007): Bagaimana Cara Berpikir Desainer, Jalasutra, Yoqyakarta Liliweri, Prof.Dr.Alo (2014): Pengantar Studi Kebudayaan, Nusa Media, Bandung Mangunwijaya, YB (1995): Wastu Citra, PT Gramedia Pustaka Utama, Jakarta E.K.M. Masinambow dan Rahayu S. Hidayat (2001), Semiotik Mengkaji Tanda dalam Artifak, Balai Pustaka, Jakarta Noth, Winfried (1995): Handbook of Semiotics, Indiana University Press, USA Oliver, Paul (2003): Dwelling: The Vernacular House World Wide, Phaidon, New York Oliver, Paul (2006): Built to Meet Needs: Cultural Issues in Vernacular Architecture, Architectural Press, Oxford Oliver, Paul (1975): Shelter, Sign & Symbol, Barrie & Jenkins, London Parker, DeWitt H (1945): The Principles of Aesthetics, Appleton Century Crofts Inc., New York Picard, Michel (2006): Bali Pariwisata Budaya dan Budaya Pariwisata, Kepustakaan Populer Gramedia, Jakarta Rapoport, A (1969): House Form and Culture, NJ: Prentice Hall, Englewood Cliffs Rudolfsky, B. (1964): Architecture Without Architecture: A Short Introduction to Non-Pedigreed Architecture, Museum of Modern Art, New York Salura, Purnama (2001): Ber-Arsitektur: Membuat, Menggunakan, Mengalami dan Memahami Arsitektur, Architecture & Communication, Bandung Schulz, CN (1980): Genius Loci, Towards a Phenomenology of Architecture, Rizzoli, New York Scruton, Roger (1979): The Aesthetics of Architecture, Methuen & Co, London Siregar, Laksmi G. (2008): Makna Arsitektur: Suatu Refleksi Filosofis, Penerbit Universitas Indonesia, Jakarta Snyder, James C. dan Catanese, Anthony J. (1992): Pengantar Arsitektur, Penerbit Erlangga, Jakarta Soetiadji S., Ir. Setyo (1986): Anatomi Estetika, Penerbit Djambatan, Jakarta Suardana, I Nyoman Gde (2005): Arsitektur Bertutur, Yayasan Pustaka Bali, Denpasar Suartika, Gusti Made Ayu (2013): Vernacular Transformations: Architecture, Place and Tradition, Pustaka Larasan, Denpasar Sumalyo, Yulianto (1997): Arsitektur Modern Akhir Abad XIX dan XX, Gadjah Mada University Press, Yogyakarta Wahid, Julaihi & Alamsyah, Bhakti (2013) Teori Arsitektur: Suatu Kajian Perbedaan Pemahaman Teori Barat dan Timur, Graha Ilmu, Yogyakarta Widagdo (2000) : Desain dan Kebudayaan. Direktorat Jendral Pendidikan Tinggi, Departemen Pendidikan Nasional. Jakarta Wijaya, Made (2002): Architecture of Bali. Archipelago Press. Singapore & Wijaya Words. Bali