THE TRANSFORMATION OF CONTEMPORARY ARCHITECTURE: A REINTERPRETATION AND UNDERSTANDING OF LOCAL GENIUSES

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Abstract

Throughout history, architects have experienced many struggles in the transformation of design in various locations. In the era of the Dutch East Indies, when Indonesia was not yet independent, architects Thomas Karsten (1884–1945) and Maclaine Pont (1885–1971) studied the architecture of the region as they developed their designs. This process of transformation is also conducted by architects today.
The efforts of transformation within modern society are generally challenged by the tasks assigned to architects and the skills of local workers, who may have forgotten the traditional techniques of processing natural materials. In the world of local architecture, the term "local genius" refers to a person who has inherited skills passed down from previous generations. The challenge for the architects of today lies in how to transform local concepts and expertise into truly modern architecture. This paper examines three projects carried out by the author, as a practitioner architect. The projects are examined as case studies and are located in three different places: The first project is located on the mountain slopes of Central Java; the second project is located on top of the mountain; and the final project is located beside the river in Tabanan, Bali. This article also discusses a central theme presented by architect Hendrik Petrus Berlage (1854–1934), who suggested that a Dutch architect can only to lead to the gate, but it is the Java-born architect who must define their local architecture.

Keywords: transformation, contemporary architecture, local genius

Abstrak

Dalam sejarahnya arsitek selalu mengalami pergulatan dalam melakukan transformasi perancangannya di suatu tempat atau lokasi tertentu. Pada era Hindia Belanda ketika Indonesia belum merdeka arsitek Thomas Karsten (1884-1945) maupun Maclaint Pont (1885-1971) berusaha melakukan riset untuk memahami arsitektur daerah. Proses transformasi itu dialami juga oleh arsitek-arsitek masa kini.
Usaha transformasi untuk masyarakat moderen atau masyarakat yang bergantung pada yang serba digital umumnya mendapatkan tantangan baik pemberi tugas maupun keahlian masyarakat setempat yang sudah lupa teknik-teknik tradisional dalam mengolah material alam. Dalam dunia arsitektur keahlian lokal (Local Genius) ini yang merupakan warisan yang diturunkan secara turun temurun. Tantangannya bagi arsitek masa kini adalah bagaimana mentransformasikan konsep lokal maupun keahlian lokal ini dalam arsitektur moderen. Tulisan ini merupakan sebuah catatan pada tiga buah proyek sebagai obyek studi kasus yang terletak di tiga tempat yang berbeda yaitu di lereng gunung di Jawa tengah, di atas gunung sekaligus pantai di Selong Belanak, Lombok, dan satu rumah di pinggir sungai di Tabanan Bali, yang dikerjakan oleh penulis sebagai praktisi arsitek. Tulisan ini juga merupakan Jawaban atas pernyataan dari arsitek HP Berlage yang mengungkapkan bahwa arsitek Belanda hanya dapat mengantarkan ke pintu gerbang, tetapi perlu sekali arsitek kelahiran Jawa yang mendefinisikan sendiri arsitektur lokalnya.

Katakunci : transformasi, arsitektur kontemporer, kejeniusan lokal

Introduction

The characteristics of Indonesian architecture vary greatly, and this is clearly seen in the various types of roofs used in Indonesian buildings. Indonesian architecture experienced a transformation in the 1930s, when it became more modern. This was the result of an integration with the Dutch rationalist style. Moreover, in the years 1920–30, the Dutch decided to move the capital of Indonesia from Batavia to Bandung. Large-scale developments in Bandung at this time gave rise to debate between the Amsterdam School and rationality.

Gunawan Tjahjomo has stated that the new vernacular style of the 1970s, coinciding with the rise of rationalism, was a response to international style. The rise of postmodernism in the 1980s was a hopeful time for modern architecture.

In the current era of globalization, social media controls image distribution as well as innovation in the field of transportation. Thus, formerly remote areas in Indonesia are now easily visited. Many people from big cities, both from Indonesia and abroad, began buying materials to build a second or third home for their vacations. In this paper, I examine three projects as case studies in order to explore the "transformation of architecture." I examine how these three projects responded to the site, what conceptualized their architecture, how this concept came to fruition, what local materials were used, and the implementation of the construction process.

Theoretical Review

The Genius Loci

A building's design and architecture should not be separate from the contextual rules of its location. Architecture as an applied or practical science is closely related to the environment in which the architectural work stands. Mangunwijaya (2009) explains that architecture is built by elevating the dignity of nature, by learning from natural processes, and by learning from local communities and their cultivation of nature. From the quotation above, one can conclude that an architectural work must be able to adapt to the environment in which it stands; it must be a container of architectural design that represents the environment and the surrounding community. How can an architectural building respond to areas with many earthquakes? How can it respond to various climates? The existence of an architectural building should not work against the surrounding natural environment; it must be able to passively respond to the surrounding environment, forming a natural balance around the building in both an ecological and social sense. Thus, architecture must be able to "socialize" with the community and environment. Architecture must create an emotional bond between itself, humans, and the environment. According to Koentjoroningrat (2002), in a society, there must be a unique pattern of behavior regarding all aspects of life within the boundaries of unity. If the architecture does not empathize with a sustainable environment, it can be said that the work is not really in the community.

Vezolli and Manzini's book, *Design for Environmental Sustainability* (2010), is about the construction and criteria of environmental design. The book supports the realization of a sustainable environment. One criterion discussed in the book is the optimization of the life span of a product through reliable and adaptive design. In this context, reliable and adaptive design is defined as a design that has considered how the building will operate in the future and adapt to various responses. By following these criteria, the building will become a sustainable building.

In this modern era, with the development of communication and building technology related to architecture, the exclusivity of the region becomes transparent, and there are no restrictions. Communication has shortened the distances between countries, while current building technology and building conditions can be engineered for the comfort of the occupants. So, is there still a relevant contextual approach to an architectural work? Even within the current concept of society and our place in it, a place of residence is no longer very exclusive; it has become quite flexible.

As Mangunwijaya (2009) has said, buildings, especially houses and dwellings, must have *use* (*wastu*) and *image (citra)*, where the image is intended as a description of the occupants and must be able to manifest the inhabitants' ideals and characteristics.

Peter J. M. NAS (2003) stated, Architecture is often used as a vehicle for expressing ethnic identity. Traditional architecture in particular is well suited to transmitting a sense of appreciation for the cultural values of a society.

It is this soulful architecture that has led to "genius loci" concept. Genius loci comes from the Roman language and refers to a "soul" or "spirit" from a certain place. It can be applied to architecture, where artificial elements in the environment must coexist and interact with the local soul. In his book, Norberg-Schulz (1980) writes that the soul gives life to humans and their environment, from the beginning to the end, and it determines the character and essence of themselves, so that the genius loci is in each personal soul and character. Thus, it can be said that architecture must give spirit of place or soul so that the place can *live*. Architecture is not about building a single component: That single component must also be able to learn and live.

The transformation of an architectural work needs to utilize the local genius, which is defined as local wisdom, which, in the past, was owned by the local architect or *Pandita*. The *Pandita* plays a role in determining the direction and position of the building in a particular site. Another task of a *Pandita* is to choose natural materials for the construction of the building. The *Pandita* also chooses local residents who are highly skilled at crafting and who understand the characteristics of the material being used, whether it is wood, bamboo, or clay. In today's modern society, architects are the ones responsible for defining the position of the building, evaluating it, and coordinating with the contractor. These complex tasks must be maximized by the architect through the use of a local genius to produce a genius loci.

In this comparative study, the author analyzed how contemporary architectural works express themselves from the viewpoint of genius loci, how contemporary buildings adapt and communicate with the environment, and how buildings build

a sense of "spirit of place." The three works were chosen because of their distinctive design characteristics and their responses to the surrounding environment in terms of both space and materials.
Dutch architects in the 30s composed non-vernacular forms of architecture that adjusted and re-defined the existing building traditions with various forms of modern western traditional roofs. But there was a revival of regionalism in the 70s as a result of oil sales. One example is Soekarno Hatta Airport in Cengkareng (now T2) by Paul Andrew (French Architect) using the same strategy, namely conventional modern buildings that are given traditional roof.

Methods

This paper conducts a comparative study of three building projects, where the concept, site, and material (roof, walls, floor, ceilings, structure, and contractors) are compared.

NO	ARCHITECTURAL OBJECT	SITE/LOCATION	MATERIALS						CONTRACTORS & BUILDER	AIR CIRCULATION	Client (s)	DRAWING DELIVERY	Recoginition
			ROOF		WALL	FLOOR	CEILING	STAIRS					
			ROOFSTRUCTURE	ROOF FINISH									
1	Casablancka (CAS)	River, Tabanan Bali	Bamboo, Bricks with Concrete Inside	Bamboo	Mostly using Bali Brick, glass on the exterior, white limestone	Floor hardener	Exposed	Metal Plate, Ulin Wood	Professional contractor from Bali	Non - AC Open Air Living Open Air Dining AC for Bedroom	Multinationality citizen (France - Indonesian)	Construction Drawing Document	Building of the Year 2016 nominated by Archdaily ACE Awards 2018 Red Carpet (ASEAN Creative Excellent)
2	Clay House (CH)	Hillside, Selong Belanak, Bali	Light steel and WF Steel Structure, Concrete	Onduiln, Container	Ramp Earth	Expose Concrete, Andesite Stone	Gypsum, *Bamboo Kepyak*	*Bamboo Kepyak*	Professional contractor from Lombok & Bali, local Sub-contractor	AC	Multinationality citizen (Netherlands - Indonesian)	Construction Drawing Document	
3	Dancing Mountain House (DMH)	Ridge of Merbabu Mountain, Salatiga	Bamboo	Bamboo	Red Brick, Brick with white paint finish, glass	Cement, Bamboo, andesite stone	Bamboo	-	3 Bamboo Expertise + local community	Non - AC	Indonesian citizen	Sketches	Arcasia Awards for Sustainability Architecture 2016

Table. 1. Comparison of Three Projects in Different Locations
Adapted from Studio processing BPA-research, 2017

Discussion

A. Case Study 01: Casablancka House, Tabanan, Bali (CAS)

This house is located in Kelating, Tabanan, Bali, and was named "Casablancka House" by the owner. The house is a ninety-minute journey from Ngurah Rai International Airport in Bali. The new residence needed to be renovated according to the site, which slopes down to the river.

Concept and Transformation

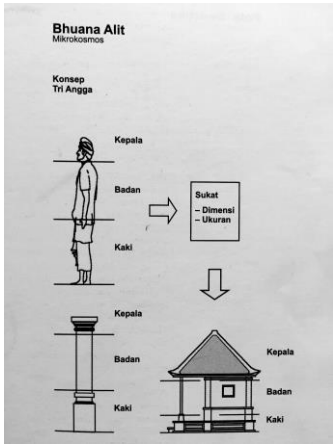

Fig. 1. Diagram of the *Tri Mandala* in Balinese Architecture.
Adapted from Ramseyer and Tisna (Eds.), 2001, p.107.

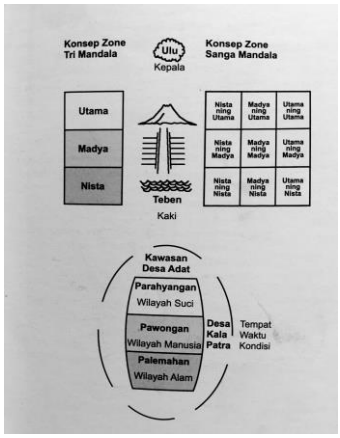

Fig. 2. Diagram of the *Tri Mandala* in Balinese Architecture.
Adapted from Ramseyer and Tisna (Eds.), 2001, p.107.

The main strategy for this project was to apply the principle concepts of Balinese architecture. The spatial concept of the Tri Mandala is developed by separating the structure into tripartite zones. This spatial concept describes three realms: The Nista Mandala is the outer realm and is quite mundane. The Madya Mandala is the middle realm. The Utama Mandala is the inner realm and is the most sacred of the three. In the center of this inner realm is the akasa, which is an area of empty space. This area is now used as a place in which to play pétanque, a typical French game. This space has also become a communication area for those who stay in this residence, and it represents the two different cultures of the client: French andIndonesian.

The Balinese concept of Sanga Mandala was also applied to this house and consists of several separate pavilions. Its placement adheres to the hierarchy of virtues and contempt as well as various spatial-division rules. The Sanga Mandala is a spatial concept that divides an area into nine parts, according to the eight cardinal directions and central space (zenith). The pattern of its composition also

relies on the Balinese swastika pattern. Casablancka House interprets this concept within a more modern design.

Fig. 3. Image of the Akasa in the Centre of the Building Composition of Casablancka House
Source : Archdaily

Building Concept

Fig. 4. Casablancka Concept Model.
Adapted from Studio processing BPA-research, 2012

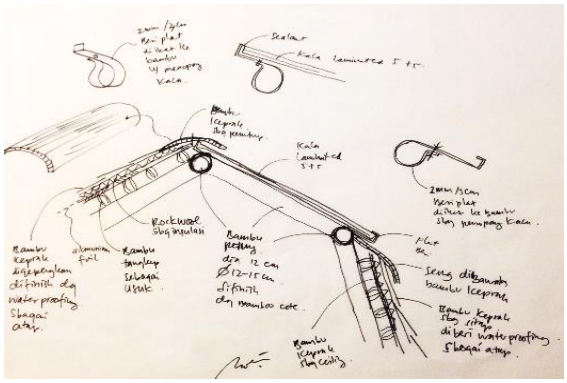

Fig.5. Casablancka Roofing Concept.
Adapted from Studio processing BPA-research, 2017

The building's concept involved the transformation of a taring, a traditional Balinese building. A taring is a temporary structure made of bamboo that is usually constructed by the community for special occasions such as weddings and cremations. The most important aspect of the taring is the separation of floors,

walls, and roof, which all stand independently. The structure of the taring was used in Casablancka House.

The walls of the building were constructed in a simple way and made of locally available bricks, arranged in a zigzag pattern, with concrete inside the bricks. This reduces the temperature inside the house and makes the interiors feel more natural, with the orange color of the bricks lending natural color-tones. Since the house is in a tropical paradise, the building is built in a way that is "open," so that the floating floor is the only thing that defines the space and the breeze can waft freely through the house.

C. Case Study 03: Clay House Selong Belanak, (CH)
Location
This house is located in Selong Belanak, in the southern part of Lombok Island. It is a thirty- minute drive from Lombok International Airport. It is located on top of a hill, and it is close to Selong beach.

Concept
Since the location of the house is on top of the mountain, the views of the surrounding countryside are beautiful; one can see many things, including the beach, paddy fields, and hills. The concept for the house was to provide an imaginary datum that organized the views. The swimming pool was positioned in the center of the datum. All of the rooms in the house were positioned so that the views of the countryside could be seen. This was an important parameter in the concept stage, where the question of which parts of the house should be transparent and which parts should not be transparent was asked. The use of local material was also an important aspect of concept development. We used a ramp-earth wall made of clay, cow dung, concrete, and sand. A container was also used in the master bedroom on the second floor.

C. Case Study 03: Dancing Mountain House, Salatiga (DMH)
Location
Location
Dancing Mountain House is located on the slopes of Merbabu Mountain in the village of Argomulyo, which is located in Salatiga. This house is in a rural area surrounded by trees; its location reflects the desire to return to nature. The shape of the land is triangular. It is 700 square meters in size, with one side facing a steep slope.

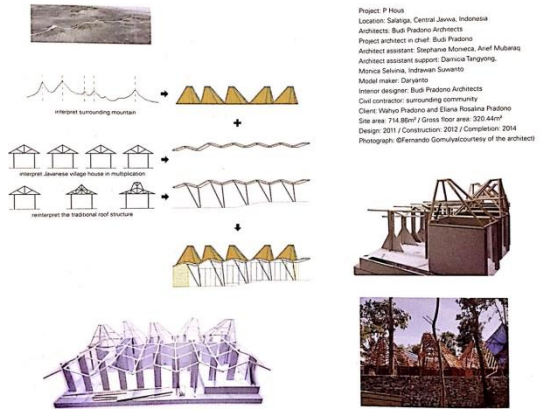

Fig. 6. Dancing Mountain House Documentation
Reprint from C3 Magazine, 2013

Concept

This house was designed with three themes in mind: place, materials, and community. Placing the dining room as the datum unifies the organization of the entire space. This brings together memories of past residents of the house: For thirty years, this family relied on the dining table as a place of communication, sharing, eating, studying,

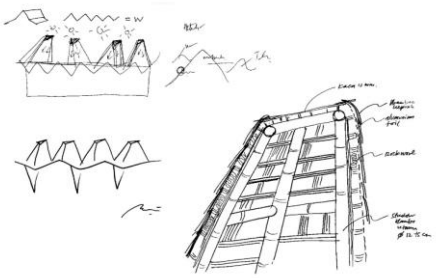

Fig. 7. Dancing Mountain House Roofing Concept.
Adapted from Studio processing BPA-research, 2017

etc. The other rooms in the house were arranged to surround the dining room. The bathroom is in a semicircle and is slightly open so that communication with people in other rooms is facilitated. Each bedroom has its own bathroom. One side of the dining room was left clear, as a representation of openness, so that the house feels “borderless.” This was done to reflect the personality of the owner of the house, who works as an educator and fought for democratic freedom earlier in his life.

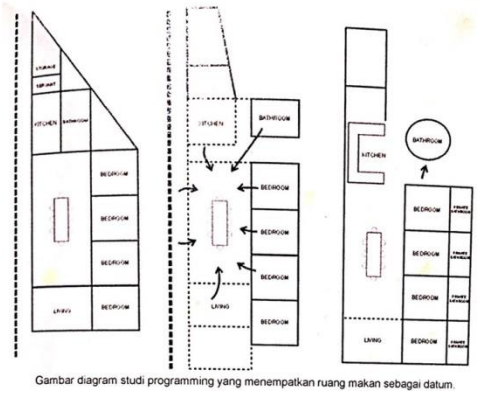

Fig. 8. Dancing Mountain House Space programming Concept.
Reprint from Clay City Book, 2012, p. 163

In addition, because the owner of the house has children who live abroad, it was important for the house to have a "going home" feel to it. This "feel" was translated into a large space (courtyard) that used materials from the old house. The large and open bathroom space was also intended to remind the owner's children of their childhoods. This place will later be equipped with a public library, as a means of sharing literature with the surrounding community. With the existence of this home library, it will become a home that will be visited by many people, similar to Javanese houses in general. According to Arya Ronald (1989), Javanese residences are more oriented to the interests of the wider community (40.5 percent) compared to family interests (16.2 percent) and personal interests (5.5 percent). These statistics prove the consistency between the view of life and establishment of society in terms of Javanese residential buildings. The buildings themselves can also be considered "concepts" that have been socialized.

Form

The basic form of the house involves *Rumah Kampung*, since the owner refused to use pendopo. Rumah Kampung presents the owner of the house as an ordinary person. The multiplication of traditional shape of *Rumah Kampung* with combination of five mountains roof just like surrounding mountains meet the form of the house become very specific.

Fig. 9. Dancing Mountain House Roofing Concept.
Adapted from Studio processing BPA-research, 2017

Bathroom as Communication Device

In Dancing Mountain House, the bathroom was designed in a semicircle with walls that were two meters high. There is also a tree inside the bathroom. The surrounding walls were constructed to maintain communication because of their height. In Indonesian history, the river was used as a shared bathroom and a place to discuss political, economic, and personal issues. In this house, the bathroom represents a place of relaxation and communication. Dialogue between East and West is preset in the bathroom (e.g., a toilet seat and shower combined with a traditional bathtub). The memories of this family's past are displayed in the bathroom: In the 1970s, the family relied on well water, and the children took showers together while their parents washed clothes beside the well. These specific memories provide value to the house.

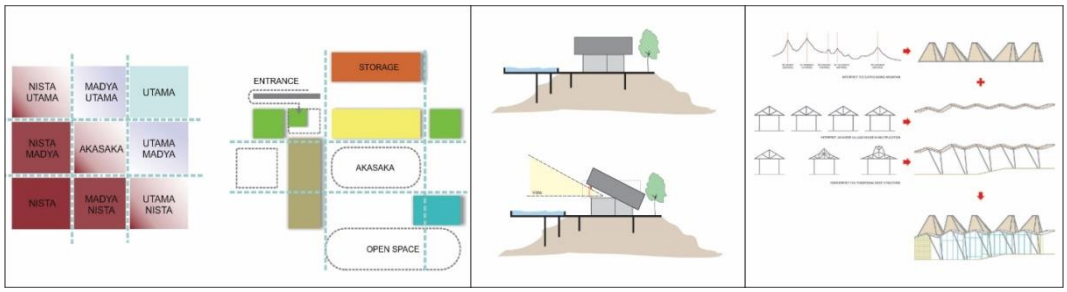

Fig. 10. Transformation Study: Comparison of Three Projects
Adapted from Studio processing BPA-research, 2017

Fig. 11. A Comparison of the Exterior Structures of the Three Projects.
Adapted from "Casablanca residence reprinted from Budi Pradono combines contemporary and traditional building methods," by A. Griffiths, 2017, *Dezeen*. https://www.dezeen.com/2017/06/17/budi-pradono-architects-contemporary-traditional-building-methods-casablancka-house-bali/ "Seven havens reprinted from Budi Pradono tops hillside house in Lombok with tilted shipping container," by E. Gibson, 2017, *Dezeen*. https://www.dezeen.com/2017/07/11/clay-house-budi-pradano-lombok-house-indonesia-shipping-container "Dancing mountain house reprinted from Budi Pradono Architects' bamboo house mimics the shapes of nearby buildings and mountains," by L. Tebbut, 2015, *Dezeen.* https://www.dezeen.com/2015/08/03/budi-pradono-architects-bamboo-dancing-mountain-house-multiple-roof-funnels-salatiga-indonesia/

Transformation and Development

In relation to the above case studies, some problems were encountered when transforming modern architecture and using local people and materials. In the construction of the Dancing Mountain House, the technique of building structures with bamboo was very difficult. This technique was carried out by an expert in this field expert, who was assisted by three coworkers. This technique was

difficult to teach to the wider community, because only some locals wanted to learn about it. Development methods such as brick work and cement that were implemented within the community-based system could only be carried out in a general way. Another difficulty in using locals in construction was that the ability of each individual who participated in the project was different.

Since the work was community-based, the schedule of the entire process was not controlled; thus, the process took a relatively long time. However, the advantage of using the community was that a sense of pride and belonging was instilled in the surrounding community. Another difficulty in using locals was the problem of synchronizing the various construction-processes. Because of this, the architect had to be on-site on a more frequent basis.

The main difficulty in terms of the construction of the Clay House was its position, as it is located on top of a mountain. Thus, the cost of transport was quite high. The Clay House used concrete structures and clay walls in its construction. Containers were also used in the construction of the house; these containers were cheap and could be purchased from various ports in Bali. However, these containers were difficult to transport to the site: They had to be dismantled first and then assembled at the site. This loading and unloading led to a great increase in cost. The bamboo that was used in the house was preserved in sea water, then dried, then painted white to prolong its life.

Material

The three buildings presented in this paper have similarities in terms of the use of bamboo material; in the Dancing Mountain House, it was used as the main structure, roof structure, and roof cover. Casablancka House was divided into two parts: The main building used a combination of concrete and steel in its structure, and the roof structure used bamboo. The study and living room were also constructed using bamboo.

In Clay House, wood was used as the finishing element of the inner container wall. This prevented too much sun from entering the rooms. Clay House used bamboo as a supporting structure. The difference in terms of the materials used in these three buildings mainly lay in the wall material; Clay House used clay walls, while in the two other houses, brick was used in the walls.

Roofs

The roof is typically the most important part of the building; it is the marker of a place. Casablancka House used traditional Balinese roofs for the living room, study, and games room. Meanwhile, the main room of the house used a roof that is a modern twist on typical village roofs. Clay House had a tilted roof, similar to that of a taring. The roof is made from ondulin, which is a mixture of bitumen and paper. For Dancing Mountain House, the traditional village roofs were transformed into gable roofs with five sections. Thus, these three buildings are both local and modern.

Fig. 12. Local Genius Material Used in Three Projects
Adapted from "Casablanca residence reprinted from Budi Pradono combines contemporary and traditional building methods," by A. Griffiths, 2017, *Dezeen*. https://www.dezeen.com/2017/06/17/budi-pradono-architects-contemporary-traditional-building-methods-casablancka-house-bali/ "Seven havens reprinted from Budi Pradono tops hillside house in Lombok with tilted shipping container," by E. Gibson, 2017, *Dezeen*. https://www.dezeen.com/2017/07/11/clay-house-budi-pradano-lombok-house-indonesia-shipping-container."Dancing mountain house reprinted from Budi Pradono Architects' bamboo house mimics the shapes of nearby buildings and mountains," by L. Tebbut, 2015, *Dezeen*. https://www.dezeen.com/2015/08/03/budi-pradono-architects-bamboo-dancing-mountain-house-multiple-roof-funnels-salatiga-indonesia/

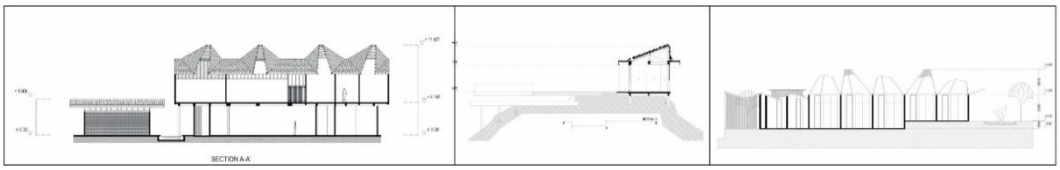

Fig. 13. Elevation Comparison of the Three Projects
Adapted from BPA documentation, 2018

Fig. 14. Section-Plan Comparison of the Three Projects
Adapted from BPA documentation, 2018

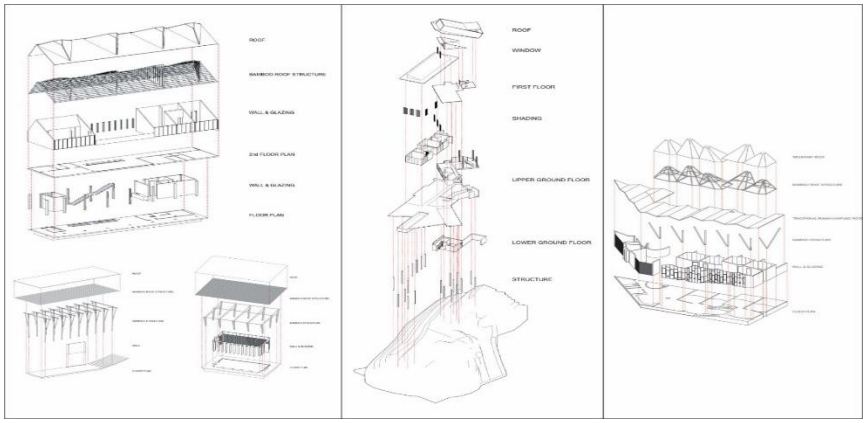

Fig. 15. Axonometric Diagram Comparison of the Three Projects
Adapted from BPA documentation, 2018

Brick Walls

The use of exposed brick in the walls and the implementation of the zigzag technique to fill them with concrete is quite a difficult task. However, because of the ability of Balinese artisans, the construction of the brick wall in

Casablancka House was relatively successful. Meanwhile, the construction of walls made from ramp earth (a mixture of clay, sand, cement, water, and cow dung) in Clay House was difficult because the composition of the mixture was incorrect, and the local people were not used to the techniques of construction. On some walls, the ramp earth often fell off; this should have been anticipated by using a wall coating. The container walls in Casablancka House were quite successful because they were covered with glass, wool, and bamboo. This reduced the temperature inside the house.

Fig. 16. Interior Comparison of the Three Projects.
Adapted from "Casablanca residence reprinted from Budi Pradono combines contemporary and traditional building methods," by A. Griffiths, 2017, *Dezeen*. https://www.dezeen.com/2017/06/17/budi-pradono-architects-contemporary-traditional-building-methods-casablancka-house-bali/ "Seven havens reprinted from Budi Pradono tops hillside house in Lombok with tilted shipping container," by E. Gibson, 2017, *Dezeen*. https://www.dezeen.com/2017/07/11/clay-house-budi-pradano-lombok-house-indonesia-shipping-container."Dancing mountain house reprinted from Budi Pradono Architects' bamboo house mimics the shapes of nearby buildings and mountains," by L. Tebbut, 2015, *Dezeen.* https://www.dezeen.com/2015/08/03/budi-pradono-architects-bamboo-dancing-mountain-house-multiple-roof-funnels-salatiga-indonesia/

Fig. 17. Bedroom Comparison between 3 Projects.
Adapted from "Casablanca residence reprinted from Budi Pradono combines contemporary and traditional building methods," by A. Griffiths, 2017, Dezeen. https://www.dezeen.com/2017/06/17/budi-pradono-architects-contemporary-traditional-building-methods-casablancka-house-bali/ "Seven havens reprinted from Budi Pradono tops hillside house in Lombok with tilted shipping container," by E. Gibson, 2017, Dezeen. https://www.dezeen.com/2017/07/11/clay-house-budi-pradano-lombok-house-indonesia-shipping-container."Dancing mountain house reprinted from Budi Pradono Architects' bamboo house mimics the shapes of nearby buildings and mountains," by L. Tebbut, 2015, Dezeen. https://www.dezeen.com/2015/08/03/budi-pradono-architects-bamboo-dancing-mountain-house-multiple-roof-funnels-salatiga-indonesia/

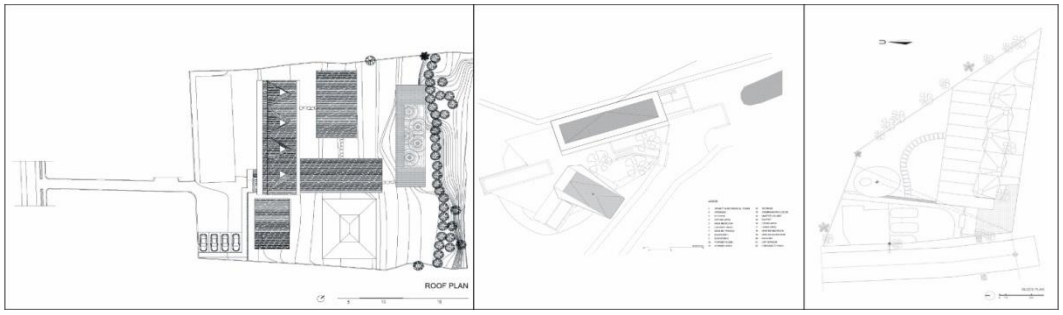

Fig. 18. Roofplan Comparison between 3 Projects
Adapted from BPA documentation, 2018

Air Circulation

In Dancing Mountain House, the climate of the surrounding area was relatively cool; many buildings is this region do not use air-conditioners. However, in Casablancka House, because it is an interpretation of traditional architecture, the entire public space (i.e., the family room and dining room) was opened up. Air-conditioners were not used here, only fans. This resulted in reduced energy costs.

Understanding the Specificity of a Place

In relation to the three projects presented above, it is paramount that the place is known and understood. The location of a place refers to the nature, humans, and materials in that place. In Casablancka House and Clay House, it was very important for architects to use local materials and implement local concepts. However, it was also important that these concepts were adapted to the needs of modern society (e.g., the use of a dry bathroom, large bath tub, and air-conditioning in private spaces).

Meanwhile, for Dancing Mountain House, the use of bamboo was an agreement between the architect and the owner because of the prevalence of bamboo in the area and the low budget for the house. Casablancka House is in front of the river, so both its orientation and composition were determined by local beliefs, as well as the lifestyle of the owner, who vacations several times per year.

Meanwhile, Clay House is on the top of the mountain, so the placement of the building is oriented to the hills and the sea, while the use of ramp earth is due to the presence of clay in the land surrounding the site. The above matters exemplify the importance of understanding the specificity of place.

Space Organization

The organization of the space and the composition of the buildings play an important role. In Clay House, this organization of mass and space was determined by the imaginary line between North and South. This was strengthened by the presence of a swimming pool on that imaginary line. As previously mentioned, the Balinese concept of Sanga Mandala was applied to Casablancka House. The organization of Dancing Mountain House was done in a linear fashion that was both elongated and oval. Meanwhile, the organization of the interior was determined by the dining room, which formed the point of orientation for the interior.

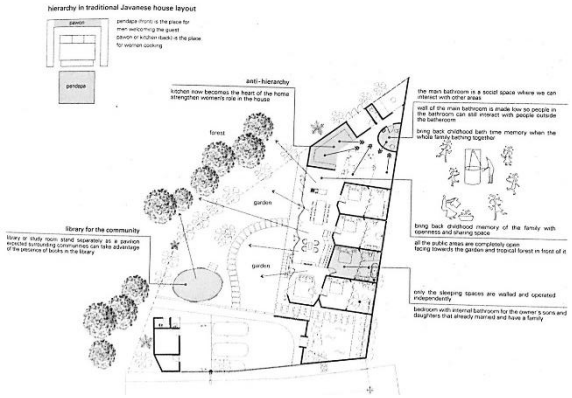

Fig. 19. Dancing Mountain House Space programming Concept.
Reprint from C3 Magazine No. 376 p. 163, 2013

Community

Professional contractors were used in the construction of Casablancka House and Clay House. Meanwhile, Dancing Mountain House used a combination of local experts and the wider community to construct the house. This house played an active role in bringing the surrounding community together. There is a bamboo lath and usuk factory nearby that has existed for generations. Using energy and materials from the local community helped the local economy and led to the generation of knowledge about construction.

On one side of Dancing Mountain House, a library was designed as a workspace that also functioned as a community space. Here, the curiosity of the local people was satisfied through books, and the Wi-Fi allowed the locals to have better access to information.

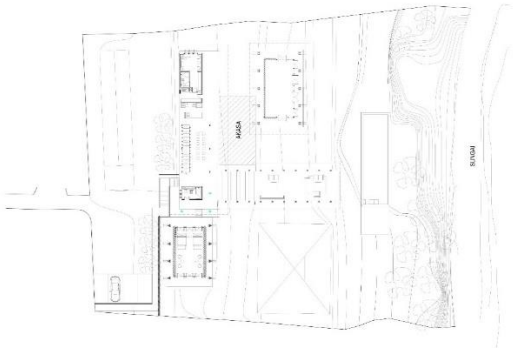

Fig. 20. Siteplan of Casablancka (CAS
Adapted from BPA documentation, 2018

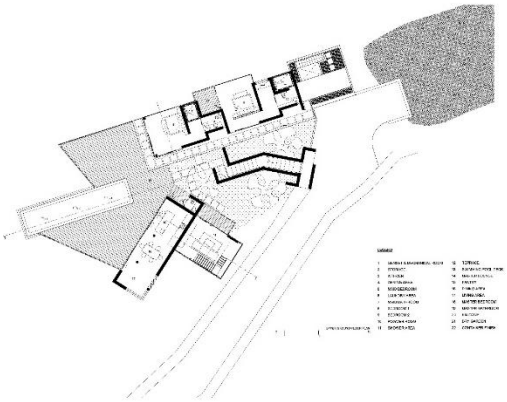

Fig. 21. Siteplan of Clay House (CH)
Adapted from BPA documentation, 2018

Fig. 22. Siteplan of Dancing Mountain House (DMH)
Adapted from BPA documentation, 2018

Conclusion

Genius loci cannot be created without the adequate use of local people and materials. Architects must learn the local traditions and cultures to explore local concepts and transform said concepts into modern architecture. In this paper, we reflected on previous projects to implement our research. We questioned our approach to context, environment, material use, and specifications. Understanding the strength of a place is essential for creating new and contemporary architecture. In this paper, we question our approach to context, environment, material use, and specifications. We understood the importance of recognizing the strength of a place to create contemporary architecture. Today, when many remote places can be reached easily, and the distribution of images through social media is faster than ever, every place needs its own specific character. As previously mentioned, in the 1930s, the Dutch East Indies architects tried to import

modernism and combine it with its local form in certain areas; now, the challenge lies in reestablishing the local genius in Indonesia.

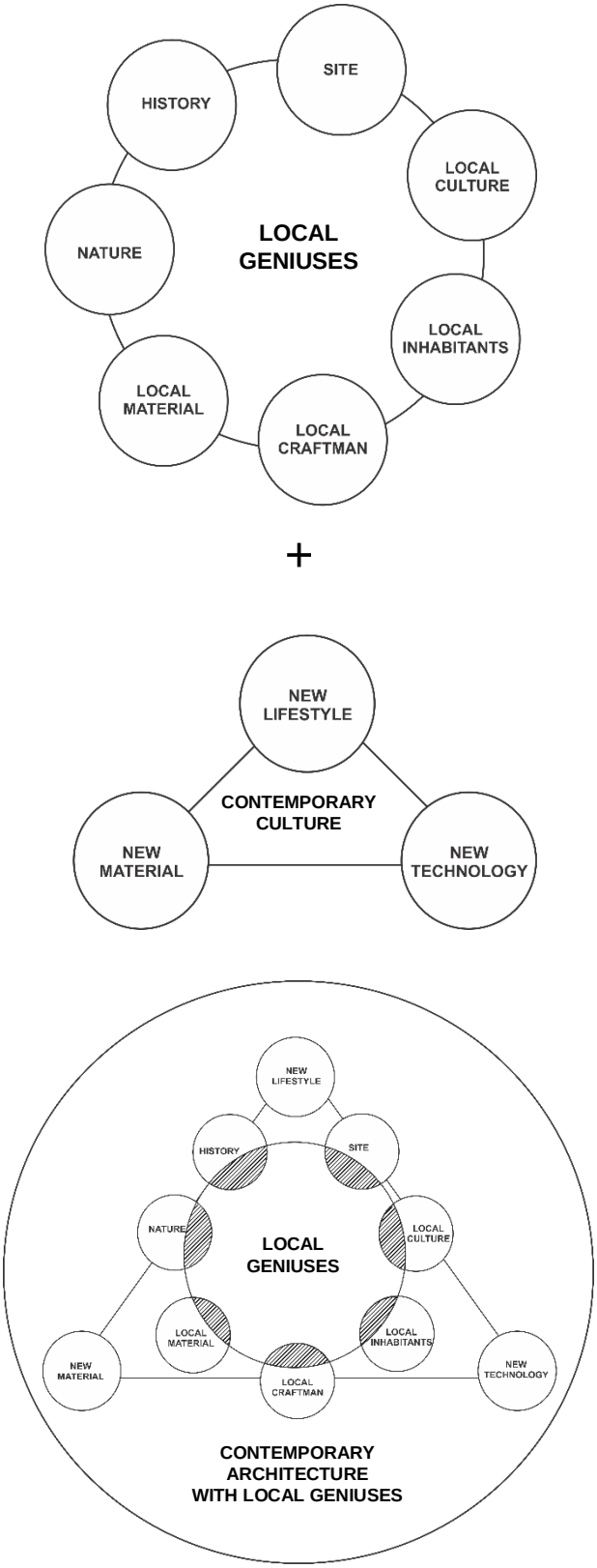

Fig. 23. Local Geniuses in Relationship with Contemporary Culture

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