

Emerging Architect's Design Method in Designing Tourist Accommodation Case Study: Tourist Accommodation in Ubud, Bali

Siluh Putu Natha Primadewi, Ngakan Putu Sueca, Ngakan Ketut Acwin Dwijendra*,
Ni Ketut Ayu Siwalatri

Doctoral Program Engineering Science, Udayana University, Denpasar, Bali, Indonesia

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Abstract Design as an activity involves certain ways and paths that must be traversed to achieve the goal. But along with the involvement of new architects in the realistic architectural world, whether it contributes to the introduction of new design approaches, influencing the direction taken to achieve design goals, the current architect in his work is the right research object to study it. The background of the knowledge makes the architect certainly form thought about their way or method of design. This research aims to find out the emerging architect's design methods in Bali in designing tourist accommodation. The benefits of the study can be used as teaching materials for students to build tourist accommodation and provide tourism actors with information about aspects that need to be considered in the design of tourist accommodation. This research's qualitative method, with in-depth interview technique and design document study with research variables, then analyzed through theories based on predetermined variables. The results of data analysis are described qualitatively to get a conclusion. The results showed two design processes (intuitive way and rational way) passed by architects in designing tourist accommodation. The design factors that are the main generator of problems in designing and design solutions are also developed differently, depending on the context and type of tourist accommodation.

Keywords Design Method, Architect, Tourist,

Accommodation

1. Introduction

Bali is known as the architectural library of tourist accommodation, where many of the world's best architects were designing tourist accommodation in various styles and sizes. Tourist accommodation can be a place to rest or stay in a tourist destination. Design can be described as a noun to express concepts and verbs to define the design as an activity or process [1][24]. Design is an activity that involves certain methods or stages, which the architect must pass through to achieve the goal. The path through which to achieve design goals is a process that consists of a variety of specific ways. Likewise, to design tourist accommodation, of course, requires an approach. The methods or stages that designers go through to achieve goals arise along with new designs or new designs in the practical world of architecture. There are always opportunities for the creation of diverse design methods. Design methods in architecture education teach how the designing process deals with problems and design solutions through structured analysis, synthesis, and evaluation. But in practice, architects do not always think and work structured, but rather through the stages of

discussion, observing and studying problems, making ideas respond to issues, then creating alternative design solutions to be decided [2][25]. The emergence of new designs and the presence of contemporary architects in the practical world of architecture, whether it has a role in colouring new ways of design, whether affecting the path passed in achieving design goals so that the right research subjects to study it are practitioners or architects themselves. It was confirmed by Lucy Kimbell, who explained that the architect is the main actor in the design process [3][23]. The background of the architect's knowledge has certainly formed thought about the way or method of design developed. Research on the architect's design method in designing tourist accommodation aims to know the process, character, and variation of emerging architect's design methods in Bali to design tourist accommodation in Ubud. The research benefits students in preparing the task of creating tourist accommodation and related parties such as accommodation entrepreneurs. The government to obtain a design of tourist accommodation by following the consideration of various design factors can be accommodated through the thoughts of practitioners who are on the rise in designing tourist accommodation based on their respective knowledge and perception of the Balinese context.

1.1. Design Method

Design as a verb is a problem-solving effort to get a solution, quoting Horst J. Rittel that "whatever he learns about the problem becomes a feature of its resolution" [4]. Design as a problem-solving and finding solutions activity is also emphasized by Gunawan Tjahjono [5] and Bryan Lawson [6]. Aditjpto's research formulates that different types of problems require other solutions [7]. It confirms that the method or stages used in designing are not generic for all design issues; certain situations need designers to take a certain action and make decisions as well [8][26].

It can pass the design process in two different ways, intuitive and rational way [9][19]. The design process in an intuitive way is done by developing intuition, instinct, and romanticism. Design intuitively is tacit knowledge [10], which is the knowledge that is difficult to document and transfer because it involves subjective experience and intuitive thinking. Ideas can come up spontaneously from anywhere and anytime; the design concepts are difficult to explain. The creative process cannot be seen clearly, which depends on the architect's mood and imagination. Rationally, the design process influenced the modern world when the "Design Method Movement." [11]. Rationally, the design process is viewed more systematically by developing rules, classifications, and procedures. Christopher Jones identifies analytical design processes with sequential approaches, i.e., divergent – transformation – convergent. [12]. Such linear processes result in practitioners not having to rely on intuition to solve design problems. The design process can be

documented and transferred because through analysis, evaluation, and logical argumentation.

Gunawan Tjahjono clarified that he must first know and understand the difficulties he faces in designing before an individual can solve problems or apply design methods [5]. He constructs a multi-stage method that recognizes the issue, acknowledges the issue, and solves the problem. Tim Mc Ginty explained that architects play a role in determining common issues in the early stages, proposing alternative solutions, and providing critical aspirations of design that drive client aspirations [13]. The architect's understanding of the problems he faced, can be seen through his ability in formulating what he understands into a program. There are many ways in producing architectural problem-solving forms. Problem-solving is related to the skills of architects, so it requires enough training and flying hours for architects to be proficient in realizing their design imagination.

How to realize architecture as a design product includes more than just a problem of function and refers to the relationship with the environment and behavior [14], which clarifies that architecture is not just a building. Building a relationship between architecture and the environment requires several important references, such as environmental quality and quality of life, workplace issues related to building order and human beings as users, and social and behavioral issues.

Eko Prawoto's visual culture, "regionalism" with the continuous process starting from seeing - understanding local people's daily lives, then planning - designing - drawing - presenting (making showing) the day-to-day meaning of the social formation of local people and creating a space in architecture. Eko Prawoto teaches how to read nature's potential and re-write it as an architectural composition [15].

KenYeang's functional connection "tropical urban regionalism", with the continuous process but emphasized more on synthesis of the selective combination of a series functional connection together into built form. These connection include: a direct connection (adaptation of the existing range of built forms and pattern); an indirect connection (interpretation through an analysis of the place); an inclusive contemporary connection (selective use and localisation of current technology, forms, and ideas that are relevant to the programme and context); a landscape connection (integrates the built configuration with the physical features and natural history of the place (include climate, topography, ecology)); a forward connection (an anticipation of the likely future historical consequences of the building) [16].

Kenneth Frampton's six points for an architectural resistance "critical regionalism", with the concurrent and continuous process from connecting buildings with the environment to create a space experience through tectonics, materials, lighting, the climate in a rational and critical design process. Kenneth Frampton asserts critical regionalism to promote spatial and experiential

architecture, rather than image-oriented [17].

1.2. Design Factor

The design process is influenced by design factors as all elements that can form a design solution. [8]. The design factors that include various problems related to architectural design, among others: Space and user (architectural issues: organisation of a space in accordance to the requirements of the users); Climate and natural (architectural issues: sun angles, temperature, precipitation, winds, earthquake, tornado, hurricane, flood); Social and cultural influences (architectural issues: history, religion, culture, arts, aesthetics, thoughts, designer objectives); Material and constructions (architectural issues: availability, durability, reliability, skills, knowledge); Natural environment (architectural issues: geography, topography, soil, vegetation); Built environment (architectural issues: neighbourhood, architectural characteristic, roads and access, utilities, and infrastructures); Building systems (architectural issues: structural/mechanical/electrical engineering); Sensory system (architectural issues: views, noise, feeling, security, privacy); Rules and regulations (architectural issues: country, state, city, building regulations); Time and budget (architectural issues: investments, interest rate, development opportunities, seasons, work hours). All design factors become considerations of designers in the design process because each design factor cannot be separated from each other. For example, material and construction factors as consideration must include conformity with climate, site, neighbourhood, structural, cost, and others.

1.3. Tourist Accommodation

Accommodation is an important element in tourism, including attractions, accessibility, and amenities (3A Concepts). Accommodation is part of the amenities, a basic product that strongly supports tourism. Business accommodation or the establishment of lodging is a place for a person to stay temporarily, such as hotels, resorts, inns, apartments, etc. [18][22]. Types of tourist accommodation, such as hotels, motels, lodges, villas, resorts, and homestays, must have characteristics and values of excellence according to guests' needs; at least two basic products of the accommodation business must have tangible and intangible products. Actual outcomes are real products, such as bedrooms and intangible products are unreal products, such as the impression of an environment created (atmosphere) as a whole captured by guests through the five human senses. The creation of intangibility through the five senses is by building an impressive experience for guests can be done with the environment's design. The purpose of vision, by creating a beautiful and charming environment through the architecture, interiors, lighting, and landscape in the hotel with good design, will create a pleasant business

atmosphere for guests. The method of the hotel should pay attention to the guest segment or the market. The sense of hearing by keeping the hotel environment away from noise pollution, using soothing music sounds, and delivering forests and water sounds. Sense of touch by creating a cool and comfortable environment or using certain architectural and interior design materials. Sense of smell with aromatherapy or refreshing landscape settings. The importance of taste by providing a menu of good and hearty food and drinks. Factors to consider in designing tourism accommodation such as who the market segment is, where it is located, how it is located, and what kind of services are needed [18][20][21].

2. Research Method

This research's qualitative method, with in-depth interview technique and documentation study of tourism accommodation design with research study variables, then analyzed through theories based on predetermined variables. The results of the analysis are outlined to get conclusions. Research variables include the theory of regionalism (a design process that is continuously seeing local space and making showing into the architectural space); functional connection (an architecture theory that attaches more importance to the relationship with the place); critical regionalism (a design theory that emphasizes the relationship of buildings with the environment to create a space experience). The design process (to know the stages in designing) and the design method consists of intuitive ways with imagining thinking and rational methods by reasoning thinking—design factors (to find out the main considerations in designing tourist accommodation). The research objects are three architects selected based on emerging categories, practicing in Bali, and mostly working in tourist accommodation architecture. Emerging architects are a category of architects who have produced the most notable works in the last year. The three architects awarded by Archinesia Emerging Architect 2019 are I Ketut Dirgantara, Gathi Subekti, and Andika Japa Wibisana.

3. Results

The research object is tourist accommodation (the type of tourist accommodation in Bali consists of star hotels, non-stars, tourist cottages (homestays), villas, family homes, and others) which is the work of three emerging architects in Bali. The following research objects are observed (Table 1).

Design Factors in Tourist Accommodation

The interview results showed differences and similarities related to factors that are the main

Emerging architects have the same consideration for space and user factors (architectural issues: function, activity, capacity, and circulation). Architects have similar consideration of social and cultural influences, especially in the culture. Architects have identical natural environmental factors, especially in geography and topography, but only two architects consider vegetation.

Object 1 is a budget accommodation type, an extension of the existing Citrus Tree villa, located in the middle of the Ubud traditional neighborhood. The main design factor is the built environment (dwelling pattern as an issue). The architect applies the extra courtyard concept to adjust to the typical typology of an existing neighborhood. Object 2 is a budget accommodation type, which is located in the rice fields. The main design factor is a natural environment (topography); the architect applies the split massing concept to adjust to site shape. Besides, the architect uses the south-facing building in response to the south-east wind and the consideration of climate factors. Object 3 is a resort accommodation type, an extension of the existing Bumi Muwa hotel. The main design factor consideration is the built environment (architectural characteristic); the architect applies the split massing concept to respond to the skyline and the surrounding architectural feature.

Object 4 is villa type accommodation for rent, located in the middle of rice fields and no vehicle access. Consideration of design factors is the natural environment (topography); architects apply a pattern of building mass that responds to the site's contours and the flow of the river. Object 5 is a retreat type accommodation, which is located in the plantation. The main design factor considerations are the natural environment (topography and geography); the architect applies a mass pattern to respond to site contours and the river.

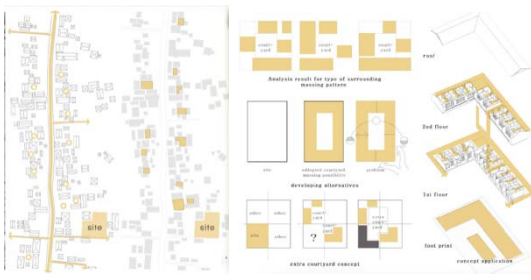
Besides, a very specific building program based on circulation and activity is also a main consideration in zoning on the site. Object 6 is an eco-resort type accommodation located between the rice fields and tropical forests of Ubud. The design factor that is the main consideration is the natural environment (topography, geography, vegetation); the architect applies a mass pattern that responds to the site contour and existing vegetation. A sensory system is also an architectural issue that is considering, including views, feeling, and privacy.

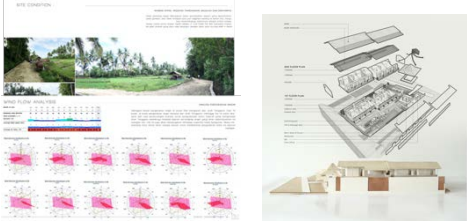


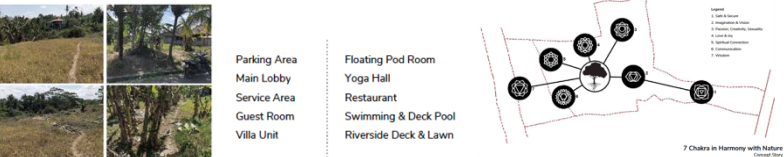
Object 7 is a villa accommodation type for lease, located in the middle of Ubud traditional settlements. The design factor that is the main consideration is the building system because this villa uses the old building structures. Object 8 is a villa accommodation type for lease that uses one site for two villa units. The main design factor consideration is the natural environment (topography, geography, climate); the architect applies building mass that follows the site's contour. Also, architectural problems (views) as a consideration, the architect involves a large opening placed at the back of the building mass. Object 9 is a private villa type accommodation located in the middle of Ubud traditional settlements. The main consideration is the built environment factor (neighborhood, architectural characteristic) and sensory system (noise and privacy), the architect applies the building's orientation leads to the courtyard.

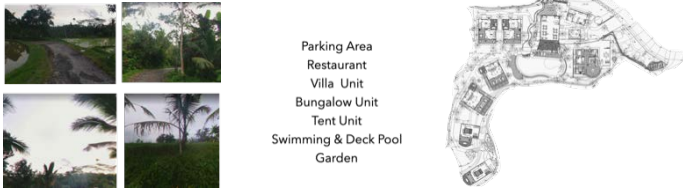
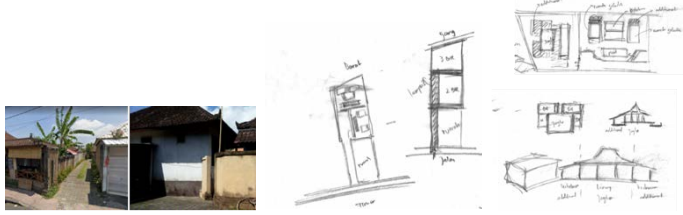


4. Discussions

Based on the identification and analysis of research objects, here are the results of applying design theory by three emerging architects on tourist accommodation in Bali (Table 3).

Table 3. Design Methods Research Objects







No	Accommodation-Architect	Application of Design Method
1	Object 1 I Ketut Dirgantara	<p>The building mass arrangement becomes important in the design of object 1 to respond to the traditional settlement pattern in the surrounding environment. The process begins with a typology analysis of the surrounding environmental mass patterns and analyses budget accommodation activities. It then develops an extra courtyard concept as an adjustment to the surrounding environment.</p>  <p>Mangosteen Hotel Design Document</p>




No	Accommodation-Architect	Application of Design Method
2	Object 2 I Ketut Dirgantara	<p>Object 2 is designed based on the potential natural environment on the site so that the building mass extends and faces south according to the shape of the site. The overall design process begins with site analysis, activity analysis in budget accommodation, schematic design in the form of sketches of ideas, then develops the concept of split massing to respond to the site potential.</p>  <p style="text-align: center;">Kandarpa Hotel Design Document</p>
3	Object 3 I Ketut Dirgantara	<p>Object 3 prioritizes the environmental problems and architectural characteristics of the surrounding environment. The surrounding building skyline, which is an average of one and two floors, affects the idea of a facade that becomes higher in the rear area. Overall, this resort's design prioritizes adjustments to the surrounding environment but is related to the skyline, not the idea of a shape. The process is carried out in a structured manner starting from the analysis process, then developing a split massing concept design on the façade that influences the spatial layout.</p>  <p style="text-align: center;">Bumi Muwa Resort Design Document</p>
4	Object 4 Gathi Subekti	<p>Site contour and river flow influence the placement of the building mass. Besides, the analysis of activity and circulation on object 4 is very important, according to the client's brief. The process is carried out simultaneously and continuously, starting from connecting the inner and outer spaces to create a spatial experience through openings while looking for mass patterns that match the site topography.</p>  <p style="text-align: center;">TS Villa Design Document</p>
5	Object 5 Gathi Subekti	<p>This object 5 prioritizes sequence and natural environment problems according to the theme given by the client. The process is carried out simultaneously and continuously, starting with site analysis and activities, then zoning development with the seven chakras concept in response to building programs and topography.</p>  <p style="text-align: center;">Lot Tunduh Retreat Design Document</p>

No	Accommodation-Architect	Application of Design Method
6	Object 6 Gathi Subekti	<p>Object 6 prioritizes the natural environment as a generator that creates the eco concept in buildings applied to its structure and materials. The process begins with an analysis of eco-tourism activities and site analysis, then develops tent buildings and mass arrangement patterns that respond to the topography.</p>  <p style="text-align: center;">Sebatu Eco Sanctuary Design Document</p>
7	Object 7 Andika Japa Wibisana	<p>Object 7 is designed based on the old building structures. The design process is simultaneously and continuously, starting from the analysis of old building structures, spatial activities, and sites. It can accommodate activities in used buildings, and sites adjust former buildings.</p>  <p style="text-align: center;">Suweta Villa Design Document</p>
8	Object 8 Andika Japa Wibisana	<p>Object 8 is designed based on topography, climate, and view so that the spatial arrangement and building shape follow the site contour. The process begins with site analysis, a schematic in the form of a bubble circulation diagram, then develops the hanging pool concept and large opening to respond to nature and escaping activity.</p>  <p style="text-align: center;">SBT Villa Design Document</p>
9	Object 9 Andika Japa Wibisana	<p>Object 9 is designed based on neighborhood and architectural characteristics and privacy issues so that the building is oriented into the site. The process begins with site analysis and space requirements analysis, schematic in the form of diagrams and sketches, then developing the concept of the semi-private ground floor and private upper floor to respond to the surrounding environment and escaping activity.</p>  <p style="text-align: center;">NK Villa Design Document</p>

In general, the most applied design method of the three emerging architects starts with the building's mass arrangement, based on the analysis of the natural and the built environment, then the development of tourism accommodation design to create a space experience by following the characteristics of tourist destinations. Here's the creation of the space experience on each research object (Table 4).

Table 4. Intangibility Products in Research Objects

No	Tourist Accommodation	Intangibility Product Applied in Architecture
1	<p>Object 1</p> 	<p>Object 1 building mass departs from the traditional mass pattern, manifested by applying the different courtyard pattern. The building proportion passes from the conventional building proportions of head, body, and feet, embodied by the application of roofs, walls, and floors. Texture and color depart from traditional buildings' simplicity, manifested by the application of raw materials such as brick, concrete, and wood to the building.</p>
2	<p>Object 2</p> 	<p>The natural ambiance of Ubud village in object 2 is manifested in the application of proportions, textures, and colors. The ratio departs from the characteristics of a traditional building consisting of the head, body, legs, which are manifested by the application of roofs, walls, and floors. The texture and color depart from traditional buildings' raw materials, such as grass for roofs and exposed concrete for walls and floors.</p>
3	<p>Object 3</p> 	<p>Ubud village's ambiance in object 3 is created by applying form, proportion, texture, and color. The existence of the existing hotel becomes the starting point for object 3, which is realized by applying the courtyard. The skyline proportion of the surrounding buildings is realized by applying split massing to the building facade. Textures and colors use raw materials such as natural stone walls, wood shingles roof, and concrete floors.</p>
4	<p>Object 4</p> 	<p>The spatial experience of the beautiful nature of Ubud village is presented in object 4 through the application of forms, textures, and colors. The spatial experience is manifested by connecting the inner and outer spaces through large openings. The spatial experience is also presented using raw materials, such as wood shingle roofs, natural stone walls, and floors.</p>
5	<p>Object 5</p> 	<p>The spatial experience of Ubud nature is presented by object 5 with the application of textures and colors from natural materials through the use of wood and natural stone as building materials.</p>
6	<p>Object 6</p> 	<p>Object 6 presents the spatial experience of Ubud through the application of forms, textures, and materials. The structure is delivered through a tent that gives the impression of being in the lush tropical forest of Ubud. Textures and materials are presented through the application of wood materials in the bungalow building.</p>

No	Tourist Accommodation	Intangibility Product Applied in Architecture
7	<p style="text-align: center;">Object 7</p> 	<p>Object 7 presents the natural ambiance of Ubud through the application of forms, textures, and materials. Textures and materials are offered through the application of wood as a raw material.</p>
8	<p style="text-align: center;">Object 8</p> 	<p>The natural ambiance of Ubud is presented by Object 8 through the application of forms, textures, and materials. The Ubud realistic spatial experience is manifested by connecting the inner and outer spaces through large openings. The Ubud natural space experience is also presented through raw materials, such as wood shingle roofs, natural stone walls, and floors.</p>
9	<p style="text-align: center;">Object 9</p> 	<p>The ambiance of the Ubud village was presented by Object 9 through the application of proportions, textures, and materials. The Ubud village's spatial experience is manifested by the application of architectural characteristics of local settlements to the facade and building courtyard patterns. The Ubud village experience is also presented through raw materials, such as wood shingle roofs, natural stone walls, and floors.</p>

5. Conclusions

Researchers found that to construct a space experience, the three emerging architects used the critical regionalism theory to link buildings with the environment. Only object number 7 starts from the layout of the deep space first, and then zoning is done on the site because of the use of existing used building structures. In general, the three designers use the reasoning method in designing tourist accommodation so that the entire design process can be documented and transferred because through analysis, evaluation, and logical argumentation. The design process is carried out continuously, starting from environmental research, activity analysis, schematic design, and design concept development. Although the design process is done by reasoning method, in bringing the experience of space (Ubud nuance) into the design of tourist accommodation, the three emerging architects use their imagination to imagine how the design is built based on its experience. It is because of the application of intangibility products in tourist accommodation so that the three emerging architects also use imaging methods by imagining the presence of space experiences (shades of Ubud) in the design of tourist accommodation through the architect's knowledge of the nuances of Ubud.

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