

## Implementation of Zoning Theory Based on the Concept of Tri Hita Karana, Tri Mandala and Sanga Mandala of Mas Village, Ubud, Bali in Maintaining Cultural Values

Citra Wahyu Nurmala<sup>1</sup>, Muchamad Hisyam Asrofi<sup>1</sup>, Arista Rahma Maqsuna<sup>1</sup>, Abidatin Madikha<sup>1</sup>, Sabbila Arkana Paramitha<sup>1</sup>, Fikri Fatoni<sup>1</sup>, Dhimas Bagus Virgiawan<sup>1</sup>

<sup>1</sup>*Social Science Education Study Program, Faculty of Social and Political Sciences, Universitas Negeri Surabaya*

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### ABSTRACT

*This study examines the implementation of zoning theory grounded in the Balinese philosophical concepts of Tri Hita Karana, Tri Mandala, and Sanga Mandala in Mas Village, Ubud, Bali, to preserve cultural values amidst rapid tourism growth. Employing a qualitative phenomenological approach within a naturalistic paradigm, the research integrates Landis's (1958) theory of social structure and Bintarto's (1983) spatial-economic interaction framework to analyze spatial organization. Data were collected through in-depth interviews, participatory observation, and document analysis, using snowball sampling to engage key informants, including adat leaders and community members. Findings reveal that Desa Mas effectively maintains Tri Hita Karana's harmony (Parhyangan, Pawongan, Palemahan) through zoned spatial planning, with Utama Mandala preserving sacred spaces, Madya Mandala fostering social activities, and Nista Mandala supporting economic functions. However, tourism-driven land conversion threatens traditional zoning, shifting economic activities from artisanal crafts to commercial ventures. The study underscores the resilience of Balinese zoning principles in sustaining cultural identity, yet highlights the need for adaptive strategies to mitigate modernization's impact. By blending traditional philosophies with modern zoning theories, this research offers insights for sustainable spatial planning in culturally sensitive tourism destinations, contributing to global discourses on cultural preservation and urban-rural dynamics.*

\*Corresponding author: [citra.23217@mhs.unesa.ac.id](mailto:citra.23217@mhs.unesa.ac.id)

### Introduction

Bali is one of Indonesia's tourism icons that has been recognized worldwide. Being the center of foreign tourist destinations is a common thing in Bali. This area is one of the islands

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that has a complexity of culture and local wisdom in various regions. One of the areas in Bali that develops and utilizes the potential of natural and cultural tourism owned by the community into objects and tourist attractions is Gianyar Regency which is located not far from Ngurah Rai Airport and also Nusa Dua, making Gianyar Regency a tourist destination that is quite visited by tourists. According to data from the Central Bureau of Statistics of Bali, foreign tourists (foreign tourists) who came directly to Bali Province in June 2024 were recorded at 518,819 visits. However, the rapid development of tourism poses challenges to the preservation of local cultural values, especially in the application of traditional spatial planning based on the concepts of Tri Hita Karana, Tri Mandala, and Sanga Mandala.

Gianyar Regency, which is one of Bali's many tourist destinations, consists of seven sub-districts, one of which is Ubud. Ubud is a sub-district surrounded by several villages, including Mas Village, which is famous for its arts and culture and has been known as a tourist village with various arts, such as masks and museums. Mas Village, Ubud is well known internationally as a village that produces sculptures. As a Tourism Village, this village has very adequate potential both in terms of culture, environment, natural beauty, access and infrastructure. The beauty of the natural panorama in the form of rice fields, rivers and culture and customs that exist in Mas Village makes this village worthy of being a Tourism Village. In addition to natural and cultural beauty, an equally important factor is as a sculpture craft village (Sukmawati et al., 2019).

Mas Village is located in Ubud District, Gianyar Regency, Bali, with a very specific astronomical location, namely at 8° 30' 15" S (south latitude) and 115° 17' 52" E (east longitude). Geographically, Mas Village is located in the southern part of Bali, about 5 km from the center of Ubud, which is known as the center of art, culture, and tourism in Bali. The location of the village is in a mountainous area, which provides a cool and beautiful natural nuance, strongly supporting the development of woodcarving crafts that characterize Mas Village. Mas Village proximity to the center of Ubud makes it easily accessible to tourists who want to experience the depth of Balinese culture. In addition, its location on the southern side of the equator (at southern latitude) provides a warm tropical climate, yet with enough elevation to create cooler temperatures compared to Bali's lowland areas. This astronomical location also plays an important role in the weather patterns and diverse ecosystems that can be found around the village, including terraced rice fields, tropical forests, and a variety of Balinese flora and fauna.

Mas Village also has a deep historical value, as it has long been known as the center of Balinese woodcarving. The craftsmen in the village have passed down a rich tradition of woodcarving with philosophical and aesthetic significance, which is also influenced by its geographical location close to the culture of Ubud. The village reflects the harmonious relationship between man and nature, which is deeply felt in the artworks produced, as well as the way the community preserves the natural surroundings. The astronomical position of Mas Village also influences the lifestyle of the people, who adapt to the natural surroundings. With cooler weather and access to abundant natural resources, the village is able to maintain its culture and local wisdom in daily life, while continuing to innovate in the world of arts and crafts.

Referring to the concept of People's Core Tourism (PIR) in Hadiwijoyo (2012: 68), the definition of a tourist village is a rural area that offers an overall atmosphere that reflects rural authenticity both from socio-economic life, socio-culture, customs, daily life, has a distinctive building architecture and village spatial structure, or unique and interesting economic activities and has the potential to develop various tourism components, such as attractions, accommodation, culinary, and other tourism needs. Along with the development of tourism, the level of tourist visits that come to Mas Village every year has increased on average from year to year. The increase in foreign tourist visits has a very positive impact on

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commercialization and shows Indonesian culture in the world. However, this also causes a threat to the fading of Balinese culture due to frequent contact with new cultures. Therefore, an effort is needed to maintain the culture.

Mas Village, is a village rich in cultural traditions and deep spirituality. The uniqueness of this village lies in the application of Balinese philosophical values in various aspects of community life, including in terms of spatial planning. In Balinese society, space is not just a physical dimension, but also has a deep spiritual meaning. Concepts such as Tri Hita Karana, Tri Mandala, and Sanga Mandala form the basis of spatial arrangements in Bali, including in Mas Village. Along with the development of tourism and modernization, it is important to review how these concepts are still applied in the spatial planning of the village. As stated by Suaryana (2022), "Balinese villages have always tried to maintain a balance between physical development and preservation of traditional values through spatial arrangements based on local philosophies."

Tri Hita Karana is a philosophy that teaches the importance of balance between the three main elements in life: human relationships with God (Parahyangan), human relationships with fellow humans (Pawongan), and human relationships with nature (Palemahan). In Mas Village, the application of Tri Hita Karana in spatial planning can be seen from the way the community organizes places of worship, social spaces, and the use of natural spaces. In this context, Tempeh (2019) explains that "Balinese spatial planning is not only oriented towards physical functionality, but also considers the spiritual dimension that connects humans with God and nature." Mas Village, famous for its woodcarving, demonstrates how this spiritual and cultural connection shapes space in a very distinctive context.

Furthermore, Tri Mandala organizes the division of space based on the level of sacredness, namely Utama Mandala, Madya Mandala, and Nista Mandala. This division illustrates how deep the relationship between place and level of sacredness is in Balinese society. Mas Village as a village that also has sacred sites, such as temples and places of worship, clearly reflects the application of this concept. Dewi & Putra (2020) suggest that "Tri Mandala becomes an important guideline in spatial arrangement, with the more sacred areas located in the innermost part of the village, while areas for daily activities are outside the main zone." In this case, the spatial arrangement in Mas Village not only reflects the practical needs of the community, but also honors and venerates areas that have religious and spiritual value.

Meanwhile, Sanga Mandala, which refers to the division of space into nine sectors, further explains the more detailed division in the organization of space. This concept helps form a system that regulates the role of each sector in social, economic and cultural life. For example, sectors within Sanga Mandala in Mas Village may include zones for agriculture, residences, public spaces, and traditional ceremony areas. According to Widyartini (2021), "The division of space through Sanga Mandala in Bali allows for a harmonious spatial organization, where each sector has a clear functional role and supports each other." The application of Sanga Mandala in Mas Village shows how this traditional zoning system can be a solution to create a balance between physical and spiritual needs.

To strengthen the spatial analysis of Mas, this research integrates the spatial theory of Paul H. Landis and Bintarto as a framework. According to Landis (in Landis, 1938), rural spatial planning should consider the relationship between people, the environment, and socio-economic activities in a community. Landis emphasized that rural spatial structures are not only physical, but also reflect the cultural values and social interaction patterns of the community. In the context of Mas Village, Landis' theory is relevant for analyzing how the village layout reflects Balinese cultural identity, such as woodcarving, while accommodating the needs of modern tourism. Landis also highlights the importance of adapting to social

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change without compromising the original character of the community, which is in line with Mas Village challenges in facing globalization.

Meanwhile, Bintarto (1983) in his theory of rural geography explains that village spatial planning is influenced by factors such as geographic location, natural resources, and the main economic activities of the community. Bintarto emphasized the concept of spatial interaction, where village spatial planning should support a balanced relationship between activity centers (such as markets or places of worship) and their surrounding areas. In the case of Mas Village, Bintarto's theory can be used to examine how the village's geographical proximity to Ubud influences the distribution of space for arts, tourism and agricultural activities, and how these spatial interactions support cultural preservation amidst the pressures of modernization. Bintarto's approach is also relevant for analyzing how tourism infrastructure, such as road access and accommodation, affects traditional spatial structures.

Previous research provides valuable insights, but has limitations. Studies such as Sukmawati et al. (2019) emphasized the tourism potential of Desa Mas without in-depth analysis of the application of Tri Hita Karana, Tri Mandala, and Sanga Mandala in spatial planning. The studies by Suaryana (2022), Tempeh (2019), and Dewi & Putra (2020) are general in nature, lacking discussion of specific challenges in Mas Village due to tourism pressures. Furthermore, these studies rarely integrate modern zoning theories, such as Landis and Bintarto, with local Balinese concepts to offer integrated solutions. This creates a gap in understanding how Mas Village can preserve local culture through spatial planning amidst tourism development.

However, with the rapid development of tourism and modernization in Bali, there are challenges in maintaining traditional values in spatial planning. Along with the increasing demand for infrastructure development to support the tourism industry, these traditional concepts are often marginalized. Pradana (2023) reminds that “Rapid modernization often ignores the values of local wisdom contained in spatial planning, which in turn can damage the balance of ecosystems and social life”. Therefore, it is important to examine the extent to which Mas Village is able to maintain and implement the principles of Tri Hita Karana, Tri Mandala, and Sanga Mandala in the context of existing developments. This research aims to explore how these concepts are still relevant in maintaining village identity, natural sustainability, and cultural preservation in the midst of globalization and modernization. Therefore, further study is needed on how the zoning system based on Tri Hita Karana, Tri Mandala, and Sanga Mandala can be maintained without hampering economic growth and village development. With the right approach, Mas Village can find a balance between cultural preservation and sustainable development, so that its identity is maintained amidst the rapid development of tourism.

This research is relevant for the local government, the community of Mas Village, tourism managers, and academics. The local government can utilize the research results to formulate sustainable tourism policies in accordance with the vision of “Nangun Sat Kerthi Loka Bali”. The Mas Village community is invited to strengthen the preservation of spatial traditions in the midst of modernization. Tourism managers can develop promotions that prioritize local cultural values in addition to natural beauty and art. Academics can contribute spatial planning theories that combine local wisdom and modern approaches, enriching the discussion of cultural preservation in the era of globalization.

### **Problem Statement**

This research focuses on the effectiveness of applying the Tri Mandala and Sanga Mandala concepts in the spatial planning of Mas Village, Ubud, and how these concepts contribute to the preservation of local culture. Tri Mandala and Sanga Mandala, as part of the Balinese architectural tradition and philosophy, have an important role in the structure and function of space in the village. However, with the increasing arrival of foreign tourists, there

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are several factors that affect the change of traditional spatial layout in Mas Village. These factors include the demand for tourist accommodation, the need for modern facilities, and the adjustment to the global lifestyle brought by the tourists. Therefore, this research will also explore how the integration of modern zoning theory with the concepts of Tri Mandala and Sanga Mandala can help protect local culture from negative influences that may arise due to tourism. Through a deeper understanding of the synergy between traditional concepts and modern theories, it is hoped that a more holistic and sustainable solution can be applied in spatial planning in Mas Village.

### Research Objectives

The purpose of this study is to determine the effectiveness of the application of the Tri Mandala and Sanga Mandala concepts in spatial planning in Mas Village, Ubud, which has an important role in preserving local culture. This research aims to evaluate the extent to which the concepts of Tri Hita Karana and Sanga Mandala are successfully applied in maintaining a balance between the development of tourism infrastructure and the preservation of traditional cultural values in Mas Village. Thus, this research will provide an overview of the successful application of these concepts in facing the challenges of globalization and the rapid development of the tourism sector.

In addition, this research also aims to analyze the factors that influence changes in traditional spatial planning in Mas Village due to the arrival of foreign tourists. This research will explore the social, economic and cultural factors that led to these changes and their impact on the spatial structure of the village. Furthermore, this research will examine the application of zoning theory combined with the concepts of Tri Mandala and Sanga Mandala, to find out how this approach can protect local culture from external influences, especially the impacts caused by tourism, without ignoring existing developments.

### Methodology

#### Research Methods and Types of Research

This research uses a qualitative approach with a phenomenological research type to explore the meanings and experiences of the people of Mas Village regarding the implementation of zoning theory based on *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala*. The qualitative approach was chosen because of its ability to capture the complexity of cultural phenomena in depth, which is in accordance with the abstract nature of Balinese cultural values. As described by Denzin and Lincoln (2011), a qualitative approach allows researchers to understand phenomena in context, such as how the spatial layout of Mas Village reflects spiritual, social and environmental harmony. Landis' (1958) theory was integrated to analyze how social structures, such as customary organizations, influence the division of zones, while Bintarto's (1983) theory was used to understand the role of economic and social activities, such as agriculture or markets, in spatial planning.

Phenomenological research was chosen to focus on the lived experiences of the people of Mas Village, including traditional leaders, religious leaders, and spatial planners, in applying the zoning concept. Phenomenology, according to Moustakas (1994), aims to explore the essence of the subject's experience of certain phenomena, such as how the community interprets the placement of the temple in *Utama Mandala* as a spiritual center. Landis' theory helps explain how social structures, such as banjar, shape spatial organization, for example, by placing houses in *Madya Mandala* to support *Pawongan*. Meanwhile, Bintarto's theory strengthens the analysis by highlighting how economic activities, such as rice field management in *Palemahan*, are integrated within *Sanga Mandala* to maintain the sustainable function of the space.

The sampling technique used was snowball sampling, which allowed the researcher to identify key informants through recommendations from the local community. Patton (2015)

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explains that this technique is effective for reaching subjects with in-depth knowledge, such as traditional leaders or spatial planners in Mas Village. The process began by interviewing initial informants, such as the head of Mas Village, who then recommended other relevant informants. This technique ensures that the data reflects a rich perspective on zoning implementation, taking into account the social structures (Landis) and socio-economic activities (Bintarto) that shape village spatial planning.

Data collection was conducted through in-depth interviews, participatory observation, and document study. Interviews explored subjects' perceptions of zoning, participatory observation allowed researchers to see spatial practices, and document studies provided normative context. By integrating Landis' theory, this research analyzes how social structures support the division of zones, such as the placement of banjars in *Madya Mandala*. Bintarto's theory is used to understand how economic activities, such as traditional markets, are organized within the *Sanga Mandala*, thus strengthening the relationship between spatial planning and cultural preservation in Mas Village.

### Focus Research

This research focuses on the application of the concepts of *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala* in spatial planning in Mas Village, Ubud, Bali, to maintain local cultural values amid tourism development. By integrating Paul H. Landis' (1958) zoning theory of social structure and Bintarto's (1983) spatial-economic interaction, this study evaluates the effectiveness of traditional Balinese zoning in supporting harmony between spiritual (*Parhyangan*), social (*Pawongan*), and environmental (*Palemahan*) dimensions. The research analyzes how spatial divisions such as *Utama Mandala* (sacred zone), *Madya Mandala* (social zone), and *Nista Mandala* (economic zone) in Mas Village respond to the challenges of spatial changes due to increasing foreign tourist visits, which affect the cultural and economic functions of the village.

The research scope is limited to Mas Village, Ubud Sub-district, Gianyar Regency, Bali, with research subjects including traditional leaders, religious leaders, spatial planners, and community members involved in zoning practices. A phenomenological qualitative approach with a naturalistic paradigm was used, relying on in-depth interviews, participatory observation, and document analysis through snowball sampling. The research did not cover other villages in Bali or quantitative aspects such as the economic impact of tourism, instead focusing on the community's subjective interpretation of the cultural values contained in the zoning. The theoretical analysis is also limited to Landis and Bintarto's perspective, without exploring other theories that may be relevant.

This limitation ensures depth of analysis in the specific context of Mas Village, but limits the generalizability of findings to other areas. The limitations of qualitative methodology may affect the measurement of the concrete impacts of spatial change, such as land conversion due to tourism. Nonetheless, this research provides valuable insights into how traditional Balinese zoning can be a strategy for cultural preservation amidst the pressures of globalization. The focus on the experiences of the people of Mas Village offers a contribution to sustainable spatial development, in line with local values, and supports further discussion on the balance between development and cultural preservation.

### Research Design

This research uses a qualitative approach with a phenomenological design to explore the lived experiences of the people of Mas Village in applying the zoning theory based on *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala*. Phenomenology, as described by Moustakas (1994), focuses on the essence of subjective experience and the meaning given by individuals to certain phenomena, which is in line with the research objective to understand how the community interprets zoning in the context of Balinese culture. This design allows the

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researcher to capture in-depth narratives of how temples in *Utama Mandala* reflect *Parhyangan*, banjars in *Madya Mandala* reflect *Pawongan*, or sawahs in *Palemahan* support environmental sustainability. Landis' (1958) theory analyzes the role of social structures, such as banjar, in spatial planning, while Bintarto's (1983) theory highlights economic activities, such as agriculture, in *Sanga Mandala*.

Phenomenology (Moustakas, 1994) was chosen to capture the subjective meaning of zoning in the Balinese cultural context, such as temples in *Utama Mandala* (*Parhyangan*), banjar in *Madya Mandala* (*Pawongan*), and rice fields in *Palemahan*. A phenomenological design was applied through data collection focusing on the subject's experience, using in-depth interviews, participatory observation, and document study. In-depth interviews explored the perceptions of traditional leaders, religious leaders, spatial planners and residents on the meaning of zoning, such as how they perceive harmony in *Tri Hita Karana*. And document studies such as maps and customary regulations.

Narrative analysis (Riessman, 2008) was used to organize the data into a coherent story about zoning, with validity maintained through triangulation and member checking (Sugiyono, 2019). The snowball sampling technique (Patton, 2015) ensured informants had in-depth knowledge. This design generates insights into cultural preservation through spatial planning in harmony with local values.

### Location and Research Subject

This research was conducted in Mas Village, Ubud Sub-district, Gianyar Regency, Bali, which was chosen because it is known as an arts and cultural center that applies the concepts of *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala* in the traditional village layout. Mas Village has unique characteristics as an indigenous village that maintains Balinese traditions, with a temple as the spiritual center (*Utama Mandala*), houses in *Madya Mandala*, and rice fields or markets in zones that reflect *Palemahan*. Landis' (1958) theory is used to analyze how social structures, such as banjar, influence the spatial organization of Mas Village, while Bintarto's (1983) theory helps to understand how economic activities, such as agriculture, are integrated in the spatial layout. Its proximity to Ubud (5 km) and its ecosystem of terraced rice fields and strong cultural traditions make it ideal for studying cultural preservation amidst the pressures of tourism.

The research subjects included traditional leaders, religious leaders, spatial planners, and Mas Village community members involved in zoning practices and cultural activities. Traditional leaders and religious leaders were chosen because of their role in maintaining *Parhyangan* values and social structures (Landis), such as the organization of religious ceremonies. Spatial planners provided insight into the implementation of *Tri Mandala* and *Sanga Mandala*, while community members offered perspectives on social and economic activities, such as rice field management or markets (Bintarto). Subject selection used a snowball sampling technique, where initial informants, such as the customary village head, recommended other relevant subjects, ensuring rich and contextualized data.

### Data Collection Techniques

Data collection was carried out using three main techniques: in-depth interviews, participatory observation, and document study. In-depth interviews were conducted with traditional leaders, religious leaders, spatial planners, and residents of Mas Village to explore their perceptions of the implementation of *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala*. According to Kvale (2007), in-depth interviews allow researchers to understand subjective meanings, such as how the community perceives the placement of temples as spiritual centers (*Parhyangan*), which is in line with the social structure in Landis' theory. The interviews were semi-structured to provide flexibility in exploring topics, such as local economic activities (Bintarto).

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Participatory observation was conducted to observe spatial practices and cultural activities in Mas Village, such as religious ceremonies, social activities in the *banjar*, or rice field management as an expression of *Palemahan*. Spradley (1980) explains that participatory observation allows researchers to capture cultural contexts through direct involvement. Observations included the division of main-middle-lower zones and economic activities, such as agriculture or traditional markets, which reflect the *Sanga Mandala* principle and are in line with Bintarto's theory. Field notes, photographs, and sketches of the zones were used to document findings, providing visual evidence of spatial structure (Landis).

Documentary studies were conducted to analyze written sources, such as the spatial plan map of Mas Village, customary village regulations, and documents related to *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala*. Bowen (2009) states that documentary analysis provides a normative context that supports field findings. Documents such as the Bali Regional Regulation on spatial planning were analyzed to understand the legal framework that supports zoning. Landis' theory helped analyze how social structures, such as *banjar* organizations, are reflected in documents, while Bintarto's theory was used to understand how economic activities, such as agriculture, are regulated in spatial planning maps.

### Data Analysis Techniques

Data analysis uses a narrative approach to compile interviews, observations, and documents into a coherent story about the implementation of zoning in Mas Village (Riessman, 2008). Data is organized by theme, such as spiritual harmony (*Parhyangan*), social harmony (*Pawongan*), and environmental harmony (*Palemahan*), with support from Landis's theory (1958) for social structures (e.g., the role of *banjar*) and Bintarto's theory (1983) for economic activities (e.g., rice field management). Data validity is maintained through triangulation, comparing interviews, observations, and documents to ensure consistency, as well as member checking to align interpretations with participants' experiences (Sugiyono, 2019).

The results of the analysis are presented in a structured narrative, supported by direct quotations to clarify the relationship between data and theoretical concepts. For example, a table may show how the *Utama Mandala* zone reflects *Parhyangan* (*Tri Hita Karana*) and social structure (Landis), while the rice field zone reflects *Palemahan* and economic activity (Bintarto). With this approach, narrative analysis connects empirical data with Landis and Bintarto's theories, as well as the concepts of *Tri Hita Karana*, *Tri Mandala*, and *Sanga Mandala*, to generate insights into cultural preservation in Mas Village.

### Research Flow Chart



Figure 1. Research Flow Design



## Result and Discussion

### **The Effectiveness of Applying the Concepts of Tri Hita Karana, Tri Mandala, and Sanga Mandala in Spatial Planning in Mas Village to Preserve Cultural Heritage**

Mas Village is a cultural tourism village located in Ubud District, Gianyar Regency, Bali Province. Based on the results of observations, interviews with traditional leaders, village officials, and local communities, as well as documentation studies, it was found that the application of the concepts of Tri Hita Karana, Tri Mandala, and Sanga Mandala in spatial planning in Mas Village, Ubud, is still carried out and has a high effectiveness in preserving local culture. The application of the concepts of Tri Hita Karana and Tri Mandala must be applied by villagers in the development of Mas Village. As expressed by Mr. I Wayan Gede Darmayuda, as the perbekel of Mas Village that:

“The concepts of Tri Hita Karana and Tri Mandala have been around for a long time in Balinese society and should be followed by all Balinese people, especially those living in traditional villages. Tri Hita Karana is a Balinese Hindu concept that includes three causes of happiness and regulates human relations with God (parahyangan), humans (pawongan), and nature (palemahan). Tri Mandala is the concept of dividing space into three parts: Utama Mandala, Nista Mandala, and Madya Mandala. Development in Mas Village, including the construction of business premises and public facilities, always considers these two concepts. Before 2025, any development planning, especially permits to build business buildings, had to obtain permission from neighbors, village officials, and the subdistrict head. However, business building permits only need to go through the Online Single Submission (OSS) system. The concepts of Tri Hita Karana and Tri Mandala play an important role in preserving traditional cultures, such as carving and ceremonies, in Mas Village” (Darmayuda, April 2025).

These values can be seen in the placement of the sacred temples (pura) in the main zone (Utama Mandala) and in the community's participation in communal activities (ngayah) during traditional ceremonies. These values are not only understood as a way of life, but also implemented directly in the daily lives of the people of Mas Village.

In terms of spatial planning, the Tri Mandala concept is still observed. The Utama Mandala zone is used for spiritual and sacred functions, such as temples and places of worship. The Madya Mandala zone is used for residential areas and social activities. The Nista Mandala zone is used for secular activities, such as agriculture and trade.

In essence, the Tri Hita Karana concept is a balanced way of life that involves worshipping God, serving one's fellow humans, and developing love and respect for the environment. According to I Made Suardiga, the Tri Hita Karana concept is used by Balinese society to maintain harmony and preserve local Balinese culture. Bali's society make this division of space a guideline in building houses, banjar halls, and other public facilities. The Tri Hita Karana concept, which emphasizes harmony between humans and God (parahyangan), humans and each other (pawongan), and humans and nature (palemahan), is evident in the way of life of the people of the Mas village. Physically, the Parahyangan zone is represented by the presence of large temples located in the main area of the Utama Mandala. These temples not only serve as places of worship, but also as centers for preserving spiritual and cultural values of Balinese society.

Pawongan is evident in the active involvement of the community in the arts, especially wood carving, which is a local identity of Mas Village. Mutual support activities, tradition preservation, and art education for the younger generation reflect the social harmony that has been maintained to this day. Palemahan, which represents the relationship between humans and their environment, is reflected in spatial patterns that preserve the existence of green open areas, rice fields, and sacred yards. This supports the principle of ecological balance and environmental sustainability in the village. "Mas Village is a concrete example of the

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implementation of Tri Hita Karana in urban planning and social life, where cultural preservation goes hand in hand with environmental conservation" (Yasa & Suamba, 2023).

Mas Village's zoned space system is based on the concept of Tri Mandala, which involves dividing the space into three zones: Utama Mandala (the holiest), Madya Mandala (social activities), and Nista Mandala (profane areas). The main temples are located in the Utama Mandala, while the residential areas are located in the Madya Mandala. Agricultural land and economic activities are placed in the nista mandala, out of respect for the sacred structures.

Meanwhile, the application of Sanga Mandala, which is the division of space based on the cardinal directions with a spiritual center in the middle, is evident in the placement of buildings and structures in the village that follow the principle of orientation towards the mountain and the sea (*kaja-kelod*). This layout not only creates visual and functional harmony, but also preserves the religious symbolic values of Balinese society. Structures that follow the Sanga Mandala principle ensure that community activities do not contradict the spiritual values upheld in Balinese cosmology.

Mas traditional village plays a central role in maintaining local cultural values through carving education, cultural festivals and religious rituals. The attraction of Mas Village lies in the art products in the form of carvings and paintings produced by artists in the village. Based on an interview conducted with the *perbekel* of Mas Village, he stated that:

"The main livelihoods of the people of Mas Village before 2020 were as painters and carving artists. Painting in Mas Village has its own characteristics, namely using flora and fauna posters in a classical style that cannot be found in other villages. One important institution that supports cultural preservation in this village is the Cultural Cooperation Agency (BKK). This institution helps develop strategic programs that support community participation-based cultural preservation. The BKK and the customary village jointly set customary regulations regarding building codes, zoning of sacred places, and prohibitions on development that damages the sanctity of the main zone. This effort succeeded in maintaining the image and function of the village space in accordance with the cultural heritage of the ancestors. The collaboration between BKK and the customary village was able to maintain a balance between development and cultural preservation, while adhering to local values. In addition to the collaboration with BKK to maintain cultural values, the village head of Mas also collaborated with Japan in the field of cultural arts through the collaboration of dance and music". According to him, "...the collaboration with Japan has been going on for a long time and is still continuing until now. Cultural preservation in Mas Village also involves the younger generation. They are always involved in ceremonial activities, construction of shrines, and maintenance of sacred buildings according to their abilities" (Darmayuda, April 2025).

Existing developments in Mas Village, such as the construction of temples, houses, markets, and business premises are considered in line with the concepts of Tri Hita Karana, Tri Mandala, and Sanga Mandala. For example, the construction of the temple is in the northern part of the village and the construction of the market is in the middle of the village. Based on the results of interviews conducted with I Wayan Sudarma as the chairman of Parisada Hindu Dharma Indonesia (PHDI), he said that:

"...the spatial development of the village begins by conducting a development study to determine the east/north direction which is considered the most sacred. The construction of places of worship and public facilities in Desa Mas is considered not to deviate from the concepts of Tri Hita Karana, Tri Mandala, and Sanga Mandala. The suitability of village spatial planning is because Mas Village is one of the traditional villages in Bali Province. Based on Bali Province Regional Regulation Number 4 of 2019, a customary village is a unity, position, original structure, traditional rights, own property, traditions, manners of

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community life. Each traditional village is led by a *perbekel* and has its own *awig-awig*/customary rules that must be obeyed by all people in Mas Village. This is because *awig-awig* is a social agreement made by all villagers as a rule in managing their territory. *Awig-awig* also regulates the layout of *parahyangan*, *pawongan*, and *palemahan*. If there are people who violate the village *awig-awig*, they will get social sanctions in the form of being ostracized and prohibited from worshipping at the temple" (Sudarma, April 2025).

Prof. R. Bintarto's theory on village-urban interaction shows that villages are under pressure of modernization due to urban development. However, Mas Village is able to maintain its traditional values through the application of custom-based zoning. This proves that adaptation to change can be done without sacrificing local wisdom. "Mas Village is the embodiment of an adaptive village that is able to maintain cultural values amidst the pressure of urbanization" (Bintarto, 1983).

### Factors Affecting Spatial Changes in Mas Village Due to Tourists

Traditional spatial changes in Mas Village, Ubud, Bali, are experiencing significant dynamics due to the rapid growth of tourism, especially with the increasing arrival of foreign tourists. One of the main consequences of this condition is the inflation of land values, which has led to massive spatial conversion. Lands that previously functioned as indigenous residential spaces and agricultural land are now being converted into inns, villas, restaurants and art galleries. This change puts pressure on the traditional zoning system based on Tri Mandala and Sanga Mandala, two Balinese spatial concepts that are cosmological and sacred (Rahmi & Riyanto, 2022). This statement is supported by I Made Suardiga, the head of Mas Village (49 years old) as follows:

"The Tri Mandala concept divides space into three levels of sacredness: Utama Mandala (most sacred), Madya Mandala (transitional), and Nista Mandala (profane). In practice, traditional Balinese houses place the most sacred buildings such as *sanggah* or *merajan* in the Kaja-Kangin (north-east) section, in accordance with the spiritual orientation towards Mount Agung and the direction of sunrise. While more profane functions, such as kitchens and cattle pens, are placed in the Kelod-Kauh (south-west) direction. However, the development of tourism has shifted this principle. Commercial buildings are now often built without regard to this sacred orientation, based solely on economic value and highway accessibility" (Suardiga, April 2025)

He also added that "Sanga Mandala, as a development of Tri Mandala, adds a division of space based on the directions of the eight cardinal points plus one central point (*nava sanga*), where each direction has a spiritual meaning and specific function." The irregularity of the orientation of modern buildings in the area is also a problem. The irregular orientation of modern buildings in Mas Village shows the weakening of directional meaning in the community's spatial structure. Villas or art galleries built facing the street without regard to this directional principle indicate a shift in values, from a spiritual orientation to a commercial orientation" (Suardiga, April 2025).

This theory emphasizes the importance of balanced development rooted in local values and wisdom. When customary zoning systems are ignored, development leads to social and spatial disorientation that threatens the sustainability of local cultures. Mas Village, once known as a center for wooden sculpture crafts with an international reputation, has undergone a significant transformation in the economic structure of its community. The influence of global tourism has shifted the community's traditional livelihoods from sculpture craftsmen to workers in the construction sector and other tourism services.

Mas Village has long been a center of wood sculpture craftsmanship that is renowned internationally. However, after the covid-19 outbreak in 2020 and along with the development of tourism and increased tourist visits, there was a change in the village's economic structure. The community began to shift from the profession of sculpture craftsmen

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to other sectors that were considered more profitable, such as construction and tourism services. This change was also driven by a decline in demand for traditional sculpture crafts. The COVID-19 pandemic exacerbated this situation, resulting in a decline in the number of tourists, which had a direct impact on craft sales. As a result, many artisans have experienced difficulties in marketing their products, which has forced them to seek alternative livelihoods.

In addition, the industrialization of craft in Bali has transformed handicrafts into a tourism commodity. Putri et al. (2017) explain that crafts, including wooden sculptures, have become products consumed by tourists, which in turn affects the value and socio-cultural function of the craft. This change in livelihood has significant social and cultural impacts. Communities that previously had specialized skills in carving now face challenges in maintaining their cultural identity. The shift to construction and tourism services, while providing a more stable income, also carries the risk of cultural homogenization and loss of traditional values that have long characterized Mas Village.

### **Integration of Zoning Theory with the Philosophy of Tri Hita Karana, Tri Mandala and Sanga Mandala in Protecting Culture from the Influence of Tourists**

The philosophies of Tri Hita Karana, Tri Mandala, and Sanga Mandala have been integrated in the awig-awig of Mas Village spatial planning. These three concepts serve as spiritual and social guidelines in village development. Tri Hita Karana, which includes parhyangan, pawongan, and palemahan, is the main key in maintaining cultural sustainability in the midst of tourism development. The implementation of Tri Hita Karana philosophical values can be seen from the role of Bale Banjar which is used as the center of social and spiritual activities of the village community, such as a coordination place for religious ceremonies, a place for dance training, and a place for deliberation.

The Tri Mandala concept is also applied in the division of village space into three zones. This is evidenced by the placement of buildings that are considered sacred and buildings that represent human relationships with God, generally placed in the northern part of the village. The market area is in the Madya Mandala zone. The village cemetery is placed in the Nista Mandala zone, generally in the southern part of the village (kelod) facing the sea and is considered to have a lower level of sanctity.

Meanwhile, the concept of Sanga Mandala, which divides space into eight cardinal directions and a central point, also influences the arrangement of the village. Each direction has its own symbolic and functional value, which is reflected in the layout of buildings and zoning of the area. For example, the northeast direction, symbolizing glory, is often the location of shrines, while the southwest direction, associated with death, is the location of cemeteries. The integration of these three philosophies in the awig-awig not only creates spatial harmony, but also strengthens the community's cultural identity.

The integration of Landis' 1958 and Bintarto's 1983 modern zoning theory with the philosophy of Tri Hita Karana, Tri Mandala, and Sanga Mandala strengthens the preservation of the local culture of Mas Village, Ubud, Bali, amidst the influence of tourism. Tri Hita Karana, which emphasizes harmony between humans and God (Parhyangan), fellow humans (Pawongan), and nature (Palemahan), is manifested in village spatial planning through awig-awig (customary regulations). For example, Bale Banjar as the center of social and spiritual activities supports Pawongan, while the temple in Utama Mandala maintains Parhyangan. Tri Mandala organizes zones based on sacredness: Utama Mandala for sacred places (for example, temples), Madya Mandala for settlements and social activities, and Nista Mandala for economic activities such as agriculture. Sanga Mandala complements this with spatial divisions based on cardinal directions, such as the placement of temples in the northeast (kaja-kangin) for spiritual value and cemeteries in the southwest (kelod-kauh).

Landis' 1958 theory analyzes social structures, such as the role of the banjar, which regulates adherence to customary zoning, preventing commercial development that violates

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sacredness. Bintarto's 1983 theory highlights spatial-economic interactions, ensuring activities such as woodcarving and agriculture continue to support cultural identity despite tourism pressures. This integration is seen in the collaboration of the Cultural Cooperation Agency (BKK) and indigenous villages, which stipulates a ban on development that damages sacred zones, as well as arts and ritual preservation programs that involve the younger generation. While tourism encourages land conversion for villas and galleries, awig-awig and cultural education maintain traditional spatial orientation, safeguarding local identity from tourist-induced cultural homogenization (Suandhi, 2023).

### Conclusion

This study shows that Mas Village, Ubud, implements zoning based on Tri Hita Karana, Tri Mandala, and Sanga Mandala to protect Balinese cultural values. Utama Mandala maintains spiritual harmony (Parhyangan), Madya Mandala strengthens social cohesion (Pawongan), and Nista Mandala supports environmental-economic balance (Palemahan), supported by awig-awig and the Cultural Cooperation Agency (BKK). Landis (1958) explains the role of social structures such as banjar, while Bintarto (1983) highlights economic-spatial interactions, such as woodcarving and agriculture. However, tourism pressure has led to land conversion, challenging the cosmological orientation of traditional zoning, as noted by Pradana (2023) regarding the risks of modernization to local wisdom. The study's limitations lie in its narrow focus on Mas Village, failing to capture variations in zoning practices in other Balinese villages, as well as the lack of quantitative data on tourism's economic impacts. Further research is recommended to compare traditional zoning in various Balinese villages and measure the socio-economic impacts of tourism on traditional spatial planning. The study's contributions include theoretical enrichment of the Landis and Bintarto model in the context of tourism, as well as practical recommendations to strengthen traditional zoning regulations and cultural education to balance tourism with the preservation of Balinese heritage.

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