

Identification of Cultural Landscapes That Form Spatial Patterns in Gelgel Village, Klungkung

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Abstract Gelgel is a village located in Klungkung regency, Bali. The landscape has a long historical background that can be traced back to the Bali kingdom era. The Gelgel cultural landscape has been certainly experienced changes from time to time. From the landscape architecture perspective, the socio-cultural changes throughout the time will create spatial patterns that relates with the spatial functions. The imprint a spatial pattern can be useful for present and future spatial planning and space utilization. Therefore, it is necessary to carry out research to identify the types of cultural landscapes as well as the layout and function of cultural landscape spaces in Gelgel Village. The research uses qualitative methods to direct the process of data collection techniques that are observation, in-depth interviews, and literature study. This research aims to find the spatial layout and functions based on the indentified cultural landscape in Gelgel village. The research shows that the cultural landscape in Gelgel Village consists of four major cultural elements that are social systems and organizations, livelihoods, arts, and religious systems and ceremonies. Those cultural elements found can be categorized into tangible and intangible cultural landscapes. Laying out the identified cultural landscapes spatially shows that the modern Gelgel village spatial pattern is centered. Even though the pattern is centralistic, the area division is still based on *parahyangan*, *pawongan*, and *palemahan* zoning system imbued from the Balinese philosophy *Tri Hita Karana*. Each area functions according to the *Tri Hita Karana* philosophy that guides the Balinese harmonious life with God, people, and the environment.

Index Terms— Gelgel village, spatial patterns, spatial planning, cultural landscapes, *Tri Hita Karana*

I. INTRODUCTION

Gelgel Village is one of the villages in Bali that famous for its arts and culture. In the past Gelgel Village was the center of the largest kingdom in Bali, namely the Gelgel Kingdom (1460–1150 AD). As a village that has had a long history since the kingdom era, the Gelgel Village has experienced changes from time to time. These changes occur in line with the increasing needs of local communities, which to some extent have been influencing

behavior and cultures within the community. One aspect of landscape architecture that can be seen in social and cultural changes in society is the spatial layout and function of space. Space is an important factor in the development of the cultural landscape in Gelgel Village. Space is formed from a cultural landscape that contains cultural elements (Koentjaraningrat, 2015), such as language, knowledge, social organization, technology, livelihood, religion and art. This culture elements certainly comes from the culture of the past during the era of the Gelgel Kingdom, which may still be inherent and passed down from generation to generation, as people can still see and experience it today. It should also be noted that, as time goes by, changes occur.

One example of a change is the location of the royal center of Klungkung kingdom, which was originally in Gelgel and then moved to Semarapura. At present, it is known as Semarapura city, which is the capital of Klungkung regency in modern Bali.

Spatial pattern is the distribution of space allocation in an area, which includes space allocation for protected functions and cultivation functions (UU RI No. 26 tahun 2007). The spatial patterns of a community that has long historical background can contribute in spatial planning process, space utilization, and control of space utilization to maintain the function of land and protected areas. Appropriate arrangement and use of space in the landscape architecture plays a role, among other things, in avoiding, preventing, and minimizing potential problems arising from the environment and society. Therefore, it is relevant to carry out research on the cultural landscape that forms the social and physical spaces in Gelgel Village,

II. METHOD

The research site is located in Gelgel Village, Klungkung District, Klungkung Regency, Bali Province. The research is conducted for ten months, starting from February 2023 to December 2023. In this research, the tools used are Google Earth Pro, QGIS, and Photoshop. The materials used are interview sheets and maps of Gelgel Village. This research is qualitative method and uses data collection techniques that are observation, interviews, and literature study. The analysis used is descriptive analysis, which involves describing the current and past conditions of the research object based on visible facts so that a conclusion can be drawn. The data analysis steps are divided into three stages, namely data reduction, data presentation, and drawing conclusions (Sugiyono, 2016). In the data reduction process, the data were searched using the categorization of cultural elements proposed by Koentjaraningrat (2015). This research uses only four elements among seven of Koentjaraningrat culture categorizations, that are social systems and organizations, livelihoods, arts, religious systems and ceremonies.

The research stages (Sugiyono, 2016), start with selecting social situations such as places, people, and activities. At this stage, the social situation chosen was Gelgel Village as a place and activity. The next stage is the observation process carried out in the selected social situation. After this process, the next step is to determine a resource person who is reliable to provide access to the research object, such as village officials. Then data that has been collected are interpreted and mapped spatially. The research results are reported in the form of descriptive and images, such as maps and photos. This research is limited to Gelgel village and does not include the Kampung Gelgel village, which is known as a muslim village in Gelgel.

III. RESULT AND DISCUSSION

A. General description

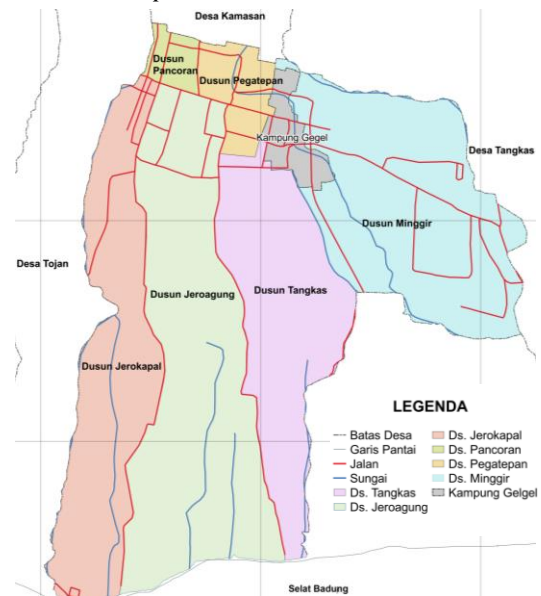


Fig. 1. Administrative boundaries and hamlet boundaries in Gelgel Village

Gelgel Village, which is located in Klungkung District, Klungkung Regency, Bali, is known as the former largest kingdom in Bali, namely the Gelgel Kingdom. Some village areas have overlapping regional borders between other villages. Gelgel is known as the former largest kingdom in Bali from the Gelgel dynasty. In modern Bali, the area of Gelgel village named as *Desa Dinas Gelgel* (Gelgel official village) based on Indonesia government administration. However, the Balinese still maintain their social-cultural tradition which makes the community still acknowledge the traditional village organization which more or less consist of physical area as well. They name it *Desa Adat Gelgel* (Gelgel traditional village). The Gelgel official village hereinafter is referred to as Gelgel Village, while the traditional village will be refer as Gelgel traditional village.

Gelgel Village is surrounded by several official villages that social and culturally belong to Gelgel traditional village. The Gelgel Village area, as an official village administration, is divided into six hamlets (*banjar* in Balinese language). The six hamlets in Gelgel Village are often referred to as official hamlets (*banjar dinas*). Those hamlets consist of thirteen traditional hamlets (*banjar adat*).

Gelgel Village is the largest village in Klungkung District, with an area of ± 394.75 ha. About 51.92 ha or 14% of the Gelgel Village is a built-up area, that consists residential buildings, offices, and temples. The green area is 342.83 ha, or 86% of the Gelgel Village, which includes rice fields, fields, and undeveloped green land.

Figure 1 shows the adjacents villages to Gelgel Village, namely Kamasan Village, Tojan Village, and Tangkas Village. The natural boundaries of Gelgel Village are Tukad Unda (Unda river) and *Subak* Kacang Dawa, *Subak* Hee, *Subak* Pegatepan, *Toya Cawu*, and *Subak* Jumpung.

Those natural boundaries are stated in the *awig-awig* (a traditional written ordinance).

The Gelgel Village is governed by *perbekel*, an official village leader, elected by the community. The organization of the official village runs by the *perbekel* with some other supporting staffs. Meanwhile, the Gelgel Traditional Village is chaired by a *Jero Bendesa* (a traditional village leader), along with a deputy (*petajuh*), a secretary (*penyarikan*), a treasurer (*petengen*), and four representations from the four traditional villages.

B. Gelgel Brief History

Gelgel Village, which comes from the word Gelgel, means like-like, favorite, or fun. *Babad Pasek* said that the name Gelgel had been around since Mpu Gana came to Gelgel (interview with I Ketut Sukrada, May 8, 2023). When Gelgel became the center of the kingdom and the center of all life activities in Bali, the name Gelgel was often replaced with the title Swecapura or Suwecalinggarsapura, which has the same meaning as Gelgel. The location of the Gelgel Kingdom building, which used to be in the Jeroagung Hamlet area, had the name Swecalinggarsapura Palace. The history of the founding of Gelgel Village is currently very difficult to prove, due to the limited evidence that can support it. Gelgel Village is described as having existed since the Dutch came to Bali. The mention of traditional villages being older than official villages was discovered by the Dutch before the existence of the Republic of Indonesia. The Dutch are also the ones who preserve the traditional villages they are tied to in *Tri Kahyangan*. As time went by, the Dutch divided the traditional villages into groups or groups don't according to the land area, so that an official village was formed for administrative purposes.

C. Cultural Landscape of Gelgel Village

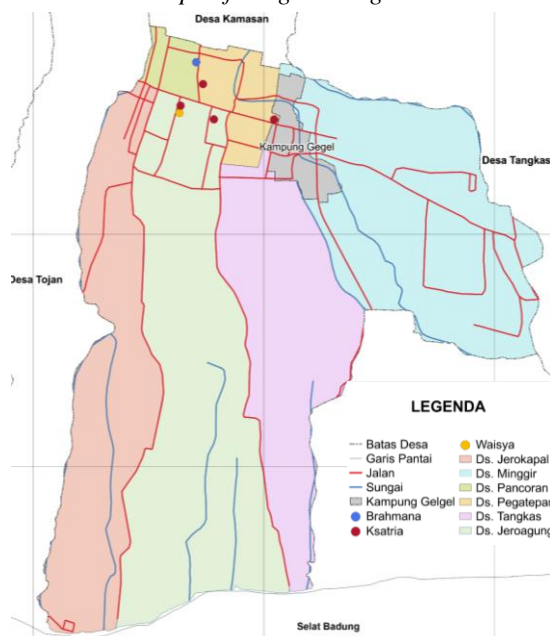


Fig. 2. Distribution of Castes in Gelgel Village

Cultural landscapes can be understood as natural landscape interventions by humans so that the existing landscape forms become distinctive and meaningful (Rosmalia and Prasetya, 2017). From the results of observations and interviews, several cultural elements were found in Gelgel Village, which were studied using four cultural elements according to Koentjaraningrat (2015). These elements include social organization systems, arts, religious systems, and religious ceremonies, as well as livelihoods. These elements are then categorized into two forms: cultural landscape things (tangible) and nothing (intangible).

The material cultural landscape identified in Gelgel Village is the result of a system of community organization, livelihoods, and the arts. These three elements were further developed into several types of aspects, namely demographic and social aspects, livelihoods, artifacts, and settlement and residential patterns, which are some of the characteristics of traditional Balinese architectural culture. The population of Gelgel Village in 2021 will be 5,292 people, with 2,585 men and 2,707 women. The people of Gelgel Village also still use the caste system (interview with I Ketut Sukrada, May 8, 2023). The castes of the Gelgel Village community are classified into four castes, namely *Brahmin*, *Kshatriya*, *Vaishya*, and *Sudra*. A society that has *Kshatriya* who lives in *puri* and is domiciled in Gelgel Village using the names Anak Agung, Gusti, and Dewa. There are three castles in Gelgel Village, namely Puri Saren Kauh, Puri Kawan Besan, and Puri Kanginan. Generally, they enter the Puri, Anyar, and Dengdeng Traditional Banjar areas. The title of the caste *Vaishya* is found in the Dengdeng and Bale Tumbak Traditional Banjar areas. And for caste distribution, *Sudra* spread to every traditional banjar in Gelgel Village. Meanwhile, the Griya Jumpung family, which has the *Brahmin* caste, is regionally located in the area of Dinas Gelgel Village, but the banjar is included in the Banjar Adat Griya area, where the traditional banjar is included in Dinas Kamasan Village. The difference in area is due to the Griya area, which is now land belonging to Puri Saren, which was handed over to Padanda Griya in Kamasan, which later became the new Griya Jumpung (interview with A.A. Bagus Wirawan, 12 January 2024).

Gelgel Village as a Service Village has a management structure led by a village head, called *Perbekel*, which has one village secretary, three section heads, three heads of affairs, and six service department heads. There are social organizations within the scope of Gelgel Village, namely organizations based on livelihoods. From the results of the interview, there are two organizations based on the livelihoods of the population, namely the Subak organization and the integrated agricultural system, or Simantri (interview with I Ketut Sukrada, August 23, 2023). Both organizations are organizations that focus on agricultural systems. Windia et al. (2005) explain that Subak is a customary law community that has socio-

agrarian-religious characteristics, which is an association of farmers who manage irrigation water in rice fields. There are two subak organizations within Gelgel Village; the subaks are Subak Toya He and Subak Pegatepan. The two subak organizations in Gelgel Village are still maintained today. This Subak organization not only focuses on agricultural activities in the rice fields but also participates in religious ceremonies, I'm afraid, which were held at Dasar Gelgel Temple.

Simantri is a government program to integrate crop and livestock cultivation businesses. According to Anugrah et al. (2014), integration activities were implemented as well-oriented towards waste-free agricultural businesses (zero waste) that produce 4F (food, feed, fertilizer, and fuel). In Gelgel Village, there are two active simantri, namely Simantri Swecapura and Simantri Satya Sujati. These two Simantri focus on agricultural activities and cattle breeding. Of the two existing Simantri, only one is still processing cattle waste into biogas, namely Simantri Swecapura.

Based on village archives, the largest type of work carried out by the people of Gelgel Village is as private employees, with 1020 people, followed by self-employed people with 886 people, and also farmers with 696 people. The existing green land area is also not used enough if the village community's profession is dominated by farmers. According to Susilowati and Maulana (2012), the land area required per rice, corn, and soybean farming household to obtain an income equivalent to or above the poverty line is a minimum of 0.65, 1.12, and 0.74 ha. Meanwhile, the forage area in Gelgel Village is only 349.83 ha. If this area is divided by the number of existing farmers, each farmer only has 0.49 ha of land, so the farmers still do not earn an income above the poverty line. This condition causes some communities to rent out the rice fields they own to farmers outside the village to plant secondary crops such as corn (*Zea mays*). There are some people who use the farming profession as a side job and also to maintain and preserve family farming traditions.

Based on observations and interviews, Gelgel Village has several remains in the form of statues and buildings that indicate the existence of civilization in the past. The remains of Batu Bolong, which is now a stone, are in front of the Gelgel Village office and are used as a place to offer offerings, and the stone was carried by the descendants of Kresna Kepakistan. Other relics were found at Puseh Temple, where there were statues that were incomplete or looked like they had been deliberately damaged and were considered symbols to weaken people's beliefs during the colonial period. There are also historical buildings inherited from the kingdom, such as Puseh Temple and Dasar Temple. Puseh Pusering Jagat Temple is a Puseh temple inherited from the Gelgel Kingdom, now this temple is used by Gelgel Village as Puseh Village Temple. Dasar Bhuana Gelgel Temple, which is the *Dang Kahyangan* Temple, is also considered a center for pilgrimage, catur warna, as a form of unifying the Balinese Hindu people. In this temple area, there is also the Bale Agung Temple as a village

temple, Gelgel Village. Several buildings at the dasar Bhuana Gelgel Temple are included in the cultural heritage building area. The buildings included in the cultural heritage are the *Kori Agung* and *Candi Bentar* buildings, which are in the *madya mandala* area. And *Meru Tumpang Solas*, which is in the *utama mandala* area. There are approximately 41 large temples and kawitans in Gelgel Village, which are supported by each village community.

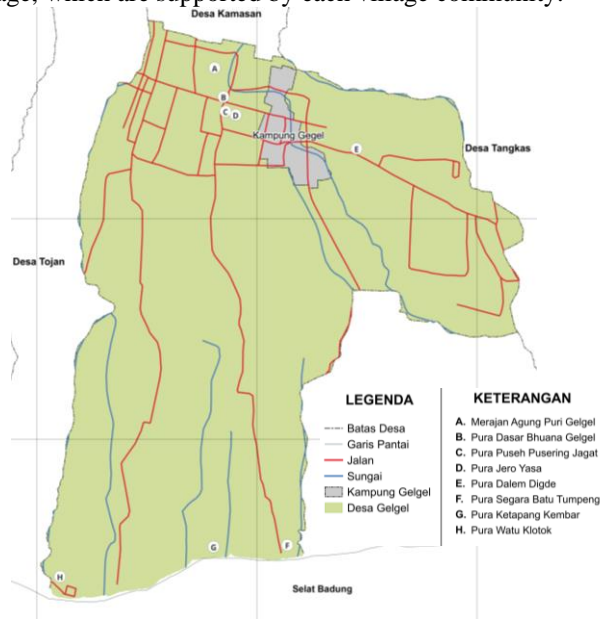


Fig. 3. Distribution of the Great Temple in Gelgel

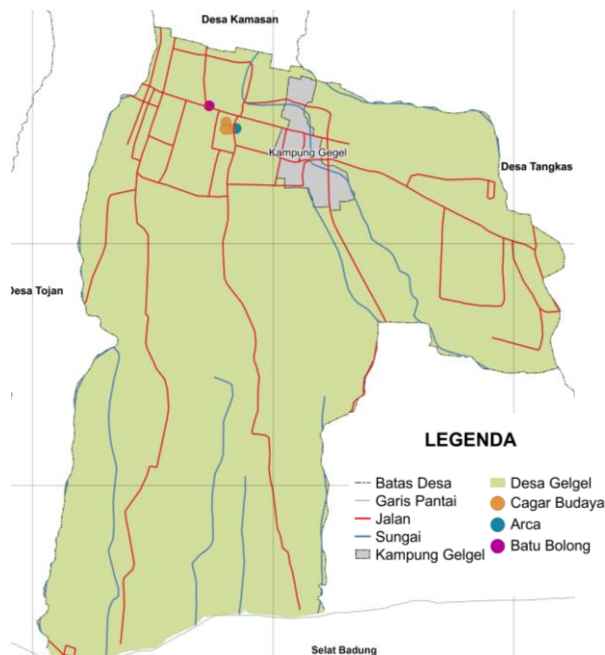


Fig. 4. Location of the Cultural Landscape of Objects

The settlement pattern in Gelgel Village is elongated following one main road, which is the central route for all activities in the village. The built-up area, which is mostly a residential area, stretches along the main road, namely Raya

Gelgel street to Waturenggong street. This condition is caused by the fact that in this area there are various kinds of facilities that people use for social and religious activities. So people build their residences close to the village center route to make it easier for them to carry out all activities.

Tri Hita Karana is the basic concept of Balinese society in spatial planning, layout, shape, and land use (Wastika, 2005). Balinese house buildings generally use traditional Balinese architectural concepts, which are architectural styles that developed in Bali. The Balinese house building is not just one unit under one roof but is divided into several rooms. The space is arranged in a spatial pattern according to the mountain axis and the sun axis. These two systems will form a pattern called the *Sanga Mandala* pattern, which divides the pattern into nine spaces (Sudiarta, 2015). Some of the residents' houses in this village no longer use the traditional Balinese architectural house concept due to the limited land conditions and not being able to accommodate the larger number of family members. Nowadays, one yard is inhabited by several small families. In one *natah*, the one they live in has one to three bedroom buildings, an outdoor kitchen, a *bale dangin*, and also one *sanggah*. It can be seen in picture A, which is a house plan for three private families in one *natah* located in Jeroagung Hamlet and does not use traditional Balinese architectural concepts. Figure B is a house plan that still uses traditional Balinese architectural concepts in Pegatepan Hamlet. The main gate of the residence in Gelgel village still uses the traditional Balinese door known as *angkul-angkul*.

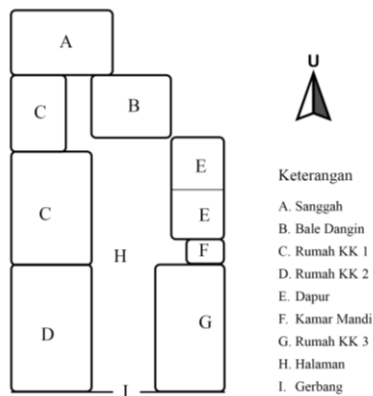


Fig. 5. House plan A

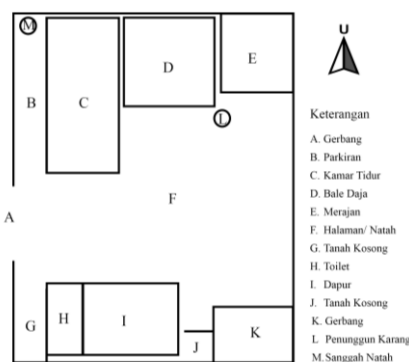


Fig. 6. House plan B

The intangible cultural landscape identified in Gelgel Village is the result of cultural elements including art as well as religious systems and religious ceremonies which are developed into aspects of ritual, tradition and art. As a Balinese society, rituals and traditions are religious activities that are routinely carried out by Hindus. Existing traditions are formed from traditional community activities which originate from a long process and have been passed down from generation to generation based on cultural values. Gelgel Village carries out rituals and traditions in accordance with the village *awig-awig* and *perarem*, both of which have been agreed upon by all village residents. The village regulation created for implementation at the Dasar Bhuana Gelgel Temple explains the regulations that the community must obey when praying or visiting the temple. One of the things explained in the *awig-awig* book is related to the religious system. This religious system explains the implementation of traditional ceremonies including ceremonies *Panca Yadnya* which was carried out in Gelgel Village.

Panca Yadnya Consists of five types of ceremonies, namely *Dewa Yadnya*, *Pitra Yadnya*, *Manusa Yadnya*, *Bhuta Yadnya*, and *Rsi Yadnya*. The *Pitra Yadnya* ceremony held in Gelgel Village is a *ngaben* activity. This activity is held every five years at Dalem Digde Temple and *setra* Bugbugan. There are also traditional activity called *ngarap bangke* matah which is carried out when there is an impromptu cremation which is carried out by most of the existing traditional banjars, except Banjar Anyar and Banjar Puri. The *Dewa Yadnya* ceremony is held at the Dasar Bhuana Gelgel Temple, the ceremonies are *piodalan* and *ngusaba*. *Piodalan* at the Dasar Bhuana Gelgel Temple is held twice a year during *Soma Kliwon Kuningan*. This *piodalan* is managed by the traditional village and castle. The *ngusaba* ceremony is held once a year during the *Purnama Kapat* and is managed by the Subak and traditional villages. The traditions carried out by Balinese Hindus which are still carried out today are traditions from Gelgel Village (interview with A.A Bagus Wirawan, 12 January 2024). With evidence of the Bhuana Gelgel Basic Temple which contains a place of worship for Ida Sang Hyang Widhi.

There is also art in the form of the Baris Oncer Ganda Dance, which is a new dance created for the masterpiece at the Dasar Bhuana Gelgel Temple that has not been performed for 500 years. This dance is a depiction and appreciation of the Dulang Mangap troops. This dance was created in 2017 and danced in 2018 during the *Karya Agung* at the Dasar Bhuana Gelgel Temple. There is the Gambuh Dance, which is the oldest Gambuh in Bali, but all that remains is the *gelungan*, which is no longer danced because there are no successors. Gambuh is a palace art from the royal era that began in the Gelgel Kingdom (interview with A.A. Bagus Wirawan, January 12, 2024). The management of the cultural landscape of objects is carried out by each developer, while if building restoration

is necessary, it will be carried out by the Balai Pelestarian Cagar Budaya Bali.

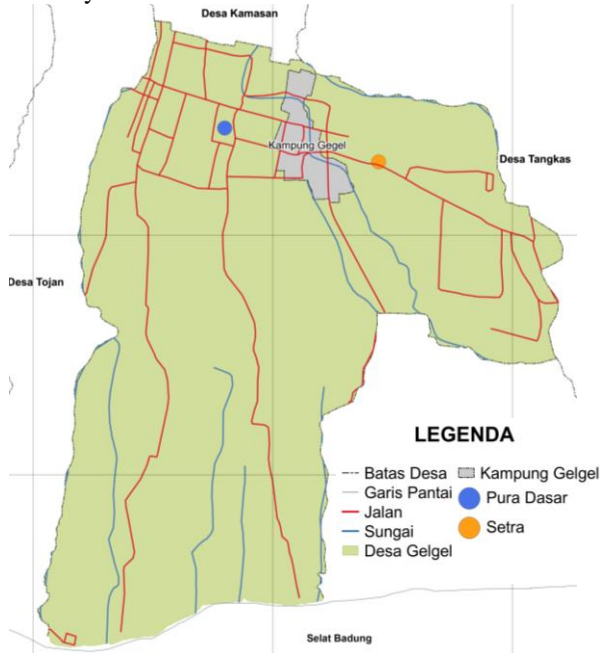


Fig. 7. Location of arts and traditions in Gelgel Village

D. Spatial layout and function of the cultural landscape in Gelgel Village

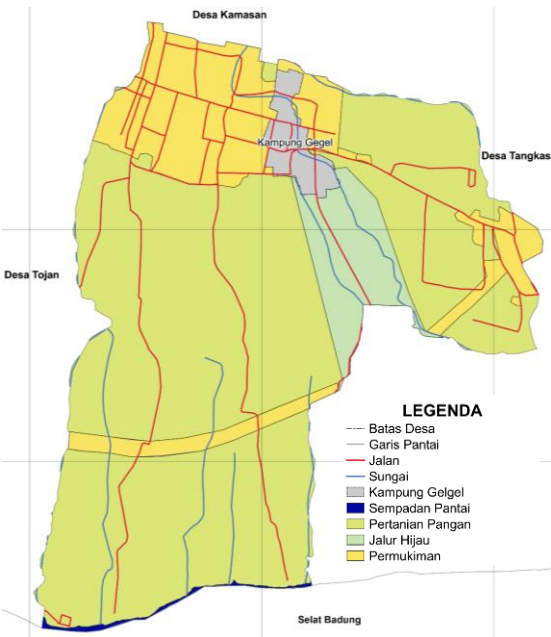


Fig. 8. Gelgel Village RTRW map

When comparing aerial photos in 2022 with the 2017–2033 Gelgel Village RTRW, there are several areas whose use is not in accordance with the RTRW created. There are several areas in the rice fields that have experienced land conversion into residential areas and roads leading to tourism areas. However, the existence of a regulation that prohibits development without conditions and permission from the village means that illegal development can still be

suppressed properly. These regulations are also very helpful in controlling and preserving protected areas in villages. Arranging and utilizing village space in accordance with regulations and needs also makes the function of spatial planning more controlled and optimal. These needs include the need to carry out religious and social activities. Some spaces not only function as protected areas, such as green belt areas, but also as community areas for carrying out social and religious activities. Space as an activity area includes residential areas, schools, offices, markets, and community halls. The space for religious activities includes the temple area.

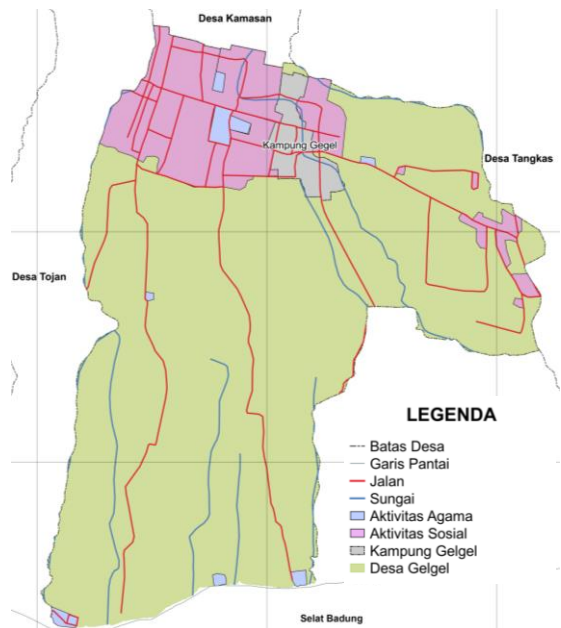


Fig. 9. Distribution of Gelgel Village Activities

E. Cultural Landscape Space Pattern in Gelgel Village

The cultural landscape in Gelgel Village originates from several cultural elements and is spread across several village areas. The spatial pattern of Gelgel Village is formed from the cultural landscape that was previously discovered. So it can be concluded that the spatial pattern of the cultural landscape in Gelgel Village has a central pattern in the northern part of the village. This centralized pattern is caused by most of the cultural elements that form social and religious activities centered at one point that stretches along the main village road.

Physically, the village pattern consists of *parahyangan*, an area designated for sacred buildings such as the *Kahyangan Tiga* Temple. The distribution of the *Kahyangan Tiga* Temple in Gelgel Village is slightly different, where the Puseh Pusering Jagat Temple is in the center of the village, flanked by the village temple and the inner temple. Bale Agung Temple is a village temple located within the Dasar Buana Gelgel Temple complex on the west side of the village. Temple Dalem Digede and Nyuhaya, as well as Pura Dalem village, are located on the

east side of the village.

Pawongan are residents of the village itself, with facilities such as banjar hall residences as a place for activities spread across several village areas. *Palemahan* is a village area that serves as a place for farming and cultivation, such as rice fields and fields that stretch along the southern side of the village. There are also villages on the east side of the village, and this setra is used by all the people of Gelgel Village and the Gelgel Traditional Village.

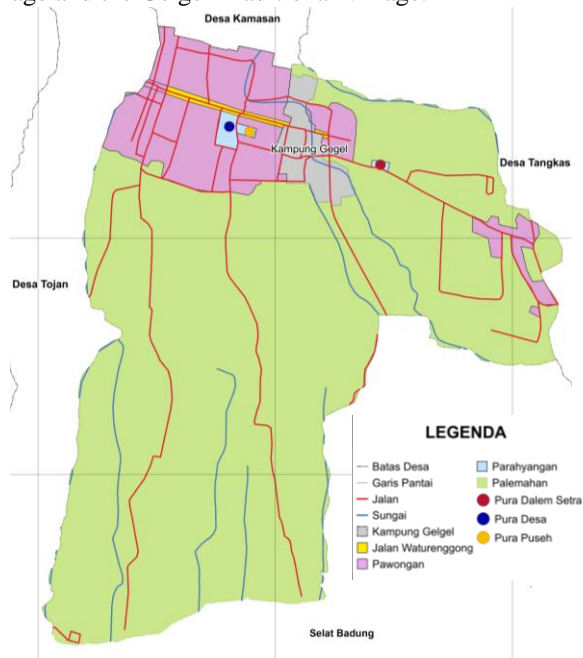


Fig. 10. Cultural Landscape Space Patterns in Gelgel Village

IV. CONCLUSION

The cultural landscape in Gelgel Village is a legacy of the Gelgel Kingdom era that still exists today. It consists of four cultural elements, according to Koentjaraningrat (2015), including social systems and organizations, livelihoods, and the arts, which are categorized as aspects of the tangible cultural landscape. The cultural landscape of objects found includes demographics, traditional and official village structures, historical buildings such as temples, artifacts, and patterns of settlement as well as residence. Religious systems and religious ceremonies, as well as art, are categorized as intangible aspects of the cultural landscape. The spatial layout and function of the cultural landscape in Gelgel Village have experienced several changes in function compared to the RTRW of Klungkung Regency in 2013–2023. The existence of village regulations in the form of *perarem*, which state that the construction of settlements in rice fields is prohibited, helps suppress land conversion and preserve existing protected areas in the village. Condition of the spatial pattern of Gelgel Village is depicted as a central pattern in the north of the village. The spatial pattern in Gelgel Village is divided into three zones based on physical elements according to *Tri Hita Karana*, namely *Parahyangan*,

Pawongan, and *Palemahan*.

Gelgel Village, as a village known for its royal history, is still lacking in terms of village recognition and development. The lack of historical data archives also makes it difficult to access data related to culture in the village. So it is necessary to collect data regarding the condition and history of the village from the time of the Gelgel Kingdom to the present. The introduction or promotion of villages as cultural villages needs to be carried out in order to develop the potential within the village.

V. ACKNOWLEDGMENT

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