

TRADITIONS THAT SAVE KARANG BENGANG IN KED CUSTOMARY VILLAGE, GIANYAR

Ni G.A. Diah Ambarwati Kardinal¹⁾, I Dewa Gede Agung Diasana Putra²⁾,
I Made Adhika³⁾, and Ngakan Ketut Acwin Dwijendra⁴⁾

¹⁾ Urban and Regional Planning, Faculty of Engineering, Universitas Hindu
Indonesia

Doctoral Engineering Science, Faculty of Engineering, Udayana University

^{2,3,4)} Department of Architecture, Faculty of Engineering, Udayana University
e-mail: diahkardinal@unhi.ac.id

ABSTRACT

Bali has a traditional landscape that is characteristic. One of them is the karang bengang, a green open space in the form of a green belt separating the area of one customary village from another. The Balinese people do not understand the existence of karang bengang. This condition makes karang bengang disappear because it changes its function and becomes a building area. The karang bengang pattern between one customary village and another is different. Many factors cause this diversity. One of them is the trust owned by the community. This is found on the karang bengang belonging to the traditional village of Ked, Taro Village. Ked Traditional Village is one of the fourteen traditional villages in the Taro Village area. The karang bengang has different uses in the north and south of Karang Bengang. If the karang bengang on the north side is used as a residence, then the karang bengang on the south side of the pemangkalan is not used to respect the existence of Lebatu Temple. This community belief has unwittingly helped the preservation of karang bengang on the south side of the settlement. The research uses a qualitative descriptive method through in-depth interviews. Mapping of karang bengang to determine the location and pattern of karang bengang utilization was carried out using a GIS application based on interviews conducted with Bendesa of Ked Traditional Village. The research on karang bengang in Ked Traditional Village hopes to increase public understanding of karang bengang so that its existence remains sustainable.

Keywords: *green open space, karang bengang, karang bengang pattern, Ked Customary Village, tradition*

1. INTRODUCTION

Bali is renowned for its unique cultural and natural landscapes, shaped by deep-rooted traditions and communal practices. Balinese culture is characterized by a wealth of rituals, ceremonies, and artistic expressions, which have deep spiritual and communal elements and are packaged in a harmonious blend of local and foreign cultures (Prawita et al., 2024). Among these is the karang bengang, a green open space that serves as a green belt, traditionally separating one customary village (desa adat) from another. This cultural element reflects the Balinese community's respect for nature and harmony in spatial planning. However, the existence of karang bengang is increasingly under threat due to a lack of awareness about its significance. In many areas, this green space has been repurposed for residential or other developmental uses, leading to the gradual disappearance of this traditional landscape feature.

The patterns and utilization of karang bengang vary between customary villages, influenced by community beliefs and local traditions. This variation is evident in the Ked Traditional Village, located within Taro Village, one of the fourteen desa adat

in the area. In Ked, the karang bengang demonstrates distinct uses based on its location. While the northern karang bengang has been converted into residential spaces, the southern karang bengang remains preserved due to the community's reverence for the nearby Lebatu Temple. This cultural belief inadvertently supports the conservation of the southern karang bengang, highlighting the interplay between tradition and environmental preservation.

To better understand and preserve the karang bengang, this research employs a qualitative descriptive approach, incorporating in-depth interviews and GIS-based mapping. By documenting the patterns and uses of karang bengang in Ked Traditional Village, the study aims to enhance public awareness and contribute to the sustainable management of this vital cultural and environmental asset.

2. RESEARCH METODOLOGY

This research adopts a qualitative descriptive method to investigate the existence, use, and conservation of karang bengang in Ked Traditional Village, located in Taro Village, Bali. The focus is on the cultural and environmental importance of karang bengang, along with the various factors that influence its usage patterns.

Data was gathered through comprehensive interviews with key individuals, notably the Bendesa Adat (traditional village leader) of Ked Traditional Village, who shared valuable insights into the historical and cultural background of karang bengang. Additional conversations with local residents were conducted to further understand community views and practices concerning karang bengang.

To analyze the spatial distribution and usage of karang bengang, a Geographic Information System (GIS) was employed. This mapping effort involved pinpointing exact locations, borders, and functional distinctions between the northern and southern sections of karang bengang. The GIS findings were validated with information obtained from interviews to ensure both precision and contextual relevance.

The research also explored how local beliefs and traditions influence the management and conservation of karang bengang. This aspect was crucial in explaining why the southern karang bengang remains preserved, attributed to the community's respect for Lebatu Temple, whereas the northern karang bengang has been converted for residential purposes.

By employing this methodology, the study seeks to deliver an in-depth understanding of karang bengang in Ked Traditional Village and aims to enhance its sustainable preservation by raising awareness of its cultural and ecological significance.

3. LITERATUR REVIEW

Karang bengang, as an important element in Bali's traditional landscape, have been discussed in several studies. Karma (2018) and Wijaya et al. (2020) are the two main studies that examined *karang bengang*. (Karma, 2018) examined the use of the *karang bengang* area between Pekraman Tegallalang and Sapat Villages, while (Wijaya et al., 2020) identified the *karang bengang* landscape in Buahan Village, Tabanan. These two studies revealed that *karang bengang* functions as a green open space (green belt) that is the boundary between customary villages, with locations that are often on river borders or empty areas between villages. (Yudiantini, 2016) emphasized that coral bengang is one of the elements of the Balinese landscape that enriches the uniqueness of Balinese traditional architecture and landscaping. Gelebet in Yudiantini (2016) explained that *karang bengang* is a large open space that functions as a green belt, in contrast to *karang*

tuang and *karang embang* which have specific locations and functions in traditional Balinese spatial planning.

Public perception of *karang bengang* varies. Gelebet (in Karma, 2018) states that *karang bengang* is a green open space belonging to the community that should not be built, while Windia (in Karma, 2018) sees it as an empty land that can be a forest, farm, or plantation. Putra (in Karma, 2018) emphasized that *karang bengang* are often deserted because they are used as agricultural land or plantations. (Paturusi & Diartika, 2010) also affirms that *karang bengang* is an empty area between villages that functions as a separator and green space. (Suyoga, 2017) revealed that *karang bengang* is an open space that is outside the settlement as a margin between settlements.

The use of *karang bengang* varies depending on the location and shape. In Tegallalang Village, the *karang bengang* that have been built tend to be used for trade and industry, while in Buahian Village, the *karang bengang* are dominated by agriculture and are equipped with village facilities such as *pancoran*. In Timbrah and Bungaya Villages (Swanendri & Suryada, 2023), *karang bengang* is in the form of dry land planted with coconut and bamboo trees, with boundary markers in the form of monuments.

The ownership of *karang bengang* also varies. In Tegallalang-Sapat Village, the *karang bengang* land is private property that can be traded, while in Buahian Village, ownership is divided between individuals and customary villages. It is different in the mention where the *karang bengang* in the village of Tenganan Pegringsingan is called the *karang embang* where in forest management it is managed collectively by the customary village, as well as in the Baduy community who protect the forest as part of the customary rules for environmental protection (Senoaji, 2010). Overall, *karang bengang* has an important role as a green open space and boundary between customary villages, with utilization and ownership varying depending on the local context and local customary rules.

4. RESULTS AND DISCUSSION

Ked Customary Village is a traditional village located on the southeast side of Taro Village. The boundaries of customary villages on the four sides (*nyatur*) are as follows where the east side is the *tukad* (river) was, on the south side, is the confluence between the was river and the *tukad* peteng which is known as *campuhan* or the confluence of two or more rivers. On the west side of the river which is known as the *peteng* river by the local community and on the north side, it is bordered by the traditional village of Taro Kaja. The Ked Traditional Village consists of one traditional banjar, namely Banjar Ked which is divided into four *tempek* consisting of *tempek kaja kangin*, *tempek kaja kauh*, *tempek kelod* and *tempek tengah*.

A. Settlement Patterns of Ked Customary Villages

Settlement land in Ked Customary Village is *karang ayahan desa* (land owned by the customary village) consisting of 126 plots of land (Awig-Awig Ked Traditional Village, 1986). The one who has the right to inhabit the lands of the *karang ayahan desa* is the *krama ngarep*. Spatially, the settlement of Ked Traditional Village has a linear pattern where the upstream part is marked by the existence of *Puseh* Temple and Village Temple and *Dalem* Temple as *teben*. In the middle of the settlement, there are village facilities such as *bale banjar*, LPD, and *wantilan*. The village *pecaruan* was carried out on the village *catus patha* in front of the *bale banjar*. The settlement of the Ked Traditional Village is located between the northern *tangluk* (boundary) and the southern *tangluk* (boundary). The physical form of the embankment is in the form of *pemangkalan*. There is a clear boundary between the built area and non-built area boundaries. As a traditional village, the attribute of *parahyangan* is *Kahyangan Tiga*, which consists of three temples as the

center of worship for the villagers, namely *puseh* temple, *Bale Agung* temple and *Dalem* temple. For the banjar unit which is a sub-part of the village, there are public facilities in the form of Bale Banjar equipped with *Bale Kulkul* and banjar temple (Dwijendra, 2003) and Ked Customary Village has these attributes completely.

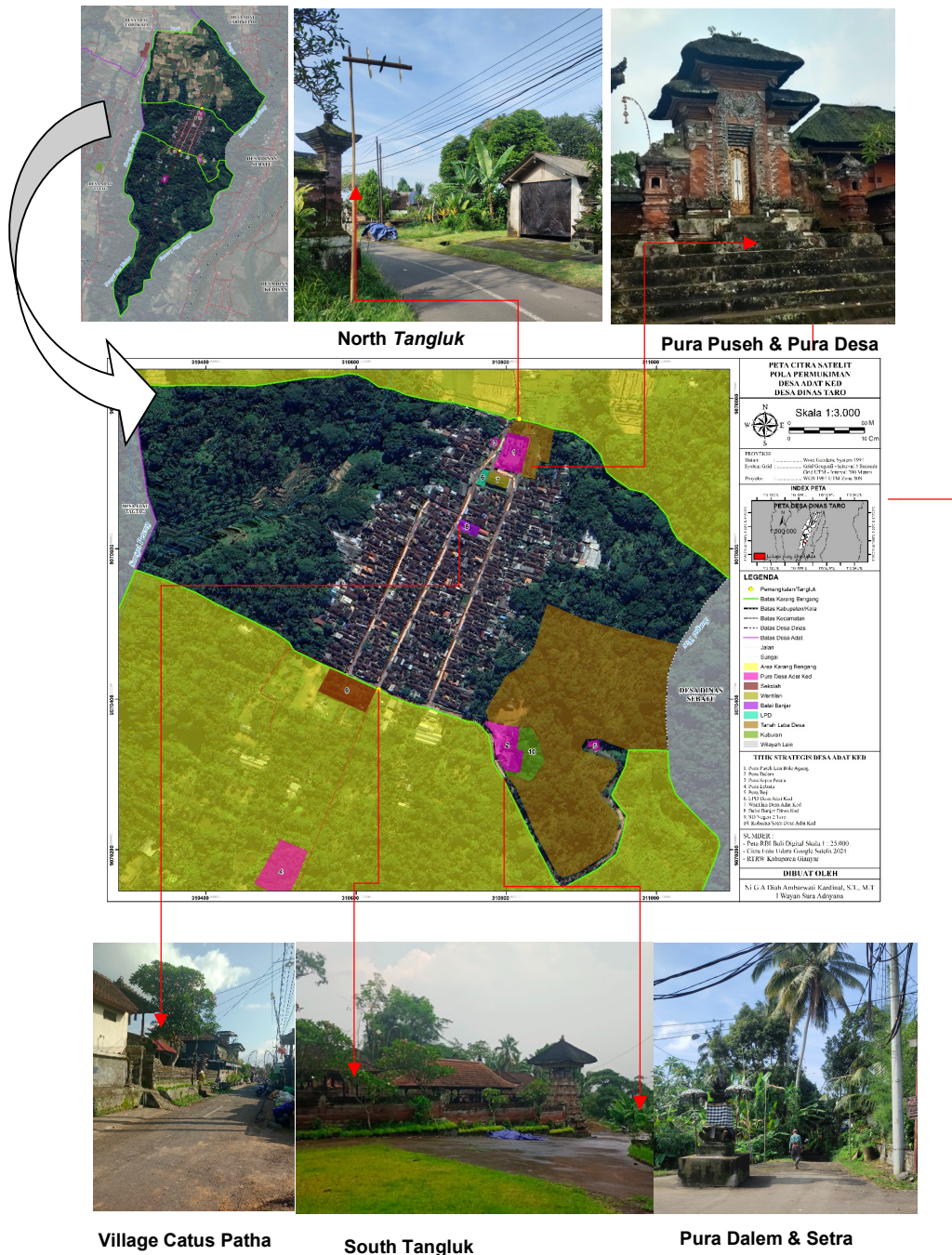


Figure 1. Settlement Pattern Of Ked Customary Village

Source: Analisis, 2024

If you look closely at Figure 1, it will appear that the position of the settlement is in the middle of the customary village. The settlement itself is in a relatively flatter area, because on the east and west sides of the settlement tends to transition

down towards the river. The land belonging to the Traditional Village is located on the north side of Puseh Temple and on the east side of Dalem Temple.

The existence of the north and south *pemangkalan* is actually a marker of the traditional green belt where the *karang bengang* is one of the boundaries of the area that cannot be built, but it seems that with the increase in the number of people which has an impact on the need for land for housing, this condition becomes ineffective. This provides a view as conveyed by (Xie et al., 2020) that the effectiveness of the green belt as a control of regional growth should be reviewed.

B. Karang Bengang Ked Customary Village

To mark the boundary of the settlement, a *tangluk* is used on the north side adjacent to Puseh Temple and the village and a *tangluk* on the south side. The physical shape of the *tangluk* will be easy to find during *sasih kenem*, when the *nanluk mrana* ceremony will be carried out by making a *tangluk* known as a *pemangkalan* made of bamboo. Judging from the spatial composition, the area of *karang bengang* in Ked Customary Village is larger than outside the settlement, where of the total area of the Ked Customary Village ± 151.8 Ha, the area of *karang bengang* reaches 81% of the total area of the area. With a fairly large area of *karang bengang*, the role of *karang bengang* that should be maximized as a buffer for settlements such as the function of the green belt as described by (Sukmaningrum et al., 2020) cannot run optimally due to the transition of *karang bengang* as a built area.

a. Karang Bengang North Side

Based on an Interview with Bendesa Adat Ked I Wayan Tanggel from the outermost northern side which is the boundary of the Ked customary village, the boundary is in the form of a *tembukuan* (Subak's waterway). Between the northernmost boundary of the *pemangkalan*, the area is dominated by rice fields and moors. In this area, there are several temples belonging to the village, namely Pura Anyar and Pura Pekarangan as well as Temples belonging to Subak Taro, namely Pura *Dugul* and *Ulun Suwi* and Bale Timbang. Access to the village is in the form of a road that divides existing rice fields. Currently, in the North Karang Bengang area, various tourism support facilities have also begun to be built. There are also houses built along the road. Population growth cannot be balanced by the availability of land for houses in residential areas located in the *pemangkalan*, so people choose to build houses in the *karang bengang* area. Based on information from *bendesa* of Ked Customary Village, currently there is no prohibition from the traditional village to people who build houses in the *karang bengang* area because they realize that indeed the land in the center of the settlement is full. There has been no agreement on this matter to slowly change the use of *karang bengang* land in the northern part of the country. The absence of village regulations related to local wisdom can erode the traditions of the people of Taro Village, is a concern as stated by (Ristawati et al., 2025)

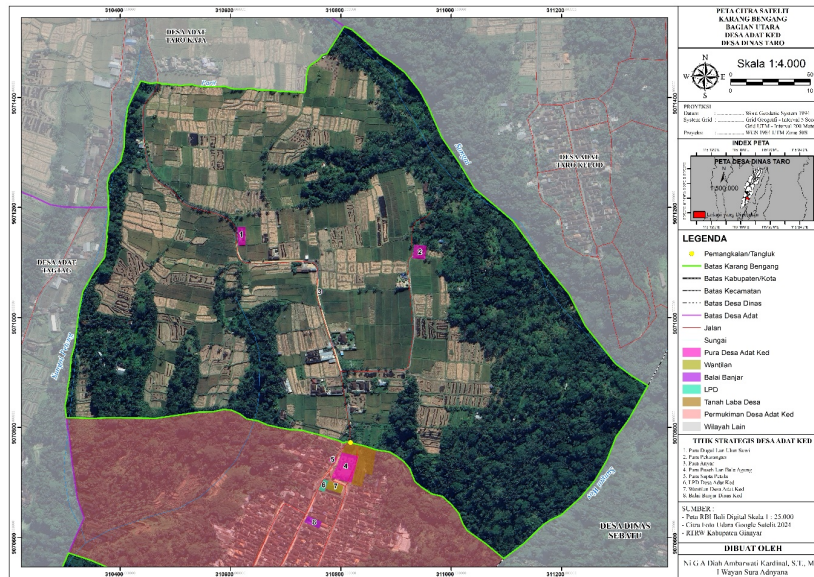


Figure 2. Karang Bembang on North Area of Ked Settlement

b. Karang Bembang South Are

The *karang bembang* on the south side is marked by the existence of *pemangkalan* and *pelinggih*. On the south side, the topography of the land tends to decline towards the river. If on the north side, the *karang bembang* is dominated by rice fields, then on the south side, the *karang bembang* is dominated by moors with the dominance of coconut, brown and other plants. The community uses its land for the benefit of plantations and livestock in the form of pig and chicken farms. The southern *karang bembang* is wider than the northern *karang bembang*.

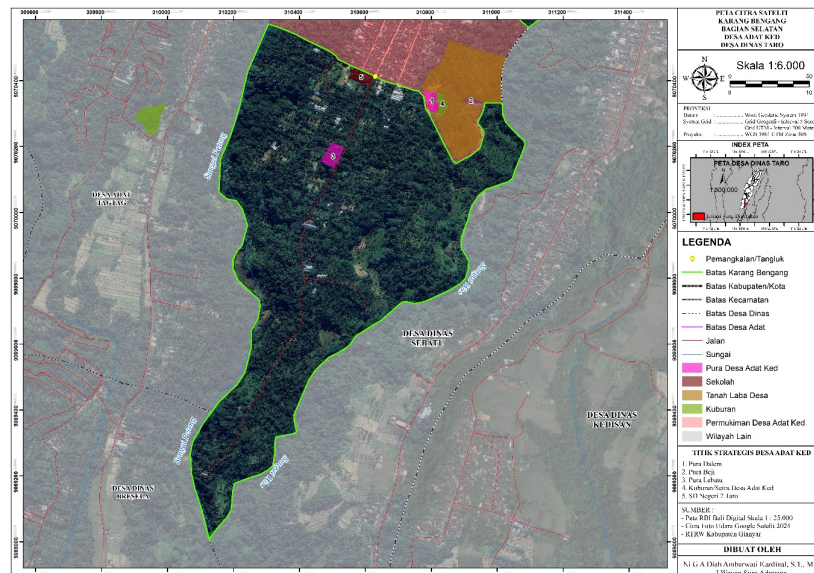


Figure 3. Karang Bembang on South Area of Ked Settlement

C. TRADITION THAT SAVES KARANG BENGANG

On Karang Bengang on the south side of *pemangkalan*, there is a temple belonging to the Ked Traditional Village called Lebatu Temple. Lebatu Temple is a temple with the concept of *mertiwi*. Temples with this *mertiwi* concept are often found in Bali Aga Village, such as Bali Aga Bayung Gede Kintamani Village as well as Bali Aga Tenganan Pegringsingan Village in Karangasem. In Taro Village itself, there are also many temples with the concept of *mertiwi*. In the temple with the concept of *mertiwi* there is no permanent *pelinggih*, but there are usually stones or trees that are purified or only in the form of empty land that is sacred. Based on an interview with a public figure of the Ked Customary Village, namely Mr. Kadek Birawan, information was obtained that the *pengemong* from Lebatu Temple used to be the krama of the Taro Kaja Customary Village, while the Sang Hyang Alang Temple which is in the area of the Taro Kaja Traditional Village, is the *krama* of the Ked Customary Village. However, because it was felt that the distance was too far, the two customary villages agreed to exchange the obligation so that Lebatu Temple became the responsibility of Ked Customary Village and Sang Hyang Alang Temple became the responsibility of Taro Kaja Customary Village. When the agreement will take place is not known for sure. It is only information that has been passed down from generation to generation without the time being known clearly anymore and the obligation has been running until now.

Based on Mr. Kadek Birawan's statement, the initial condition of Lebatu Temple such as Sabang Daat Temple, is a temple in Taro Village which is included in the territory of Puakan Customary Village. In Sabang Daat Temple, there are no *palinggih* buildings or other buildings but only a few stones lying on the ground (Gunawan & Tresnayasa, 2025). Because the tree fell in the area on the outside of Lebatu Temple, arrangements were made so that the condition is as shown in the figure 4 below.



Figure 4. Lebatu Temple

There is trust from the community with the existence of Lebatu Temple on the *karang bengang* on the south side of the *pemangkalan*. The belief is that people are not allowed to sleep above the height of the ground to respect *Ida Sesuhunan* who is glorified in Lebatu Temple, namely *Sesuhunan Sanghyang Gede Taru* and *Ratu Gede Penerangan* so that people sleep without using a bed, but only using a sleeping mat (mattress) which is directly placed on the floor. Houses with *merajan* are also not allowed to be built in this area because the concept of the sacred place must also use the concept of *mertiwi*. The community only makes small houses called *pondok* for resting places as long as they carry out their activities of farming, gardening and raising livestock on their land. As a place of worship on their land, the community made a sacred place that also uses the concept of *mertiwi* by using worship symbols in the form of stones like figure 5 below.

This belief has been inherited from generation to generation until now and does not dare to be violated by the people of Ked Traditional Village, so that the difference will be very noticeable where on the *karang bengang* on the north side of the *pemangkalan* there are already community houses while on the *karang bengang* on the south side it is used as a non-residential in the form of cages for livestock and also for rest houses (*pondok*). This belief has helped to reduce the rate of *karang bengang* utilization on the south side of the *pemangkalan*. This is important because the residential conditions of the Ked Traditional Village are already very dense coupled with the potential of the Ked Traditional Village in the field of tourism like other customary villages in the Taro Village area. Religious traditions or rituals, beliefs included in local wisdom (Jayanti et al., 2022) preserved by the people of Ked Traditional Village have proven to be able to reduce the use of *karang bengang* on the south side of the settlement.



Figure 5. Pelingih on Owned Land in the South Karang Bengang Area

5. CONCLUSION

The Ked traditional village has a traditional green open space known as a *karang bengang*. A space that should not be built but then gradually becomes a built space for both residential and non-residential functions. The increase in the population that can no longer be accommodated in the residential space of Ked Customary Village has the consequence of the manipulation of spaces outside the core settlement, namely *karang bengang* on the north side and *karang bengang* on the south side of the core settlement of Ked Traditional Village.

There is a belief that until now is held by the community in Ked Customary Village, namely the belief not to build a dwelling complete with a sacred place (Merajan) on the *karang bengang* on the south side of the settlement. Sacred places built on land owned by the community use the concept of *mertiwi*. On the south side of the *karang bengang* is only used to build *pondok* when the community carries out farming, gardening and livestock activities on their land. This tradition is related to the existence of Lebatu Temple, which is an old temple with a *mertiwi* concept. The preservation of this tradition has helped maintain the preservation of the existence of *karang bengang* on the south side of the Ked Customary Village settlement. Local wisdom such as those found in Ked Customary Village really needs to be explored in other areas as an effort to protect Balinese traditional spaces as a regional identity and integrated with customary rules that support its sustainability.

REFERENCE

- Awig-Awig Desa Adat Ked, 28 (1986).
- Dwijendra, N. K. A. (2003). Perumahan Dan Permukiman. *Natah*, 1(1), 8–24.
- Gunawan, I. K. P., & Tresnayasa, M. (2025). Keberadaan Pura Sabang Daat di Desa Adat Puakan Desa Taro Kecamatan Tegallalang. *Jurnal Inovasi Global*, 3(13), 254–264. <https://doi.org/https://doi.org/10.58344/jig.v3i1.263>
- Jayanti, I. G. N., Rupa, I. W., Satyananda, I. M., & Sumerta, I. M. (2022). Nilai Kearifan Lokal Dlaam Upaya Pelestarian Kebudayaan di Bali. *Dharmasmrti*, 22(2), 127–135. <https://doi.org/https://doi.org/10.32795/ds.v22i2.3398>
- Karma, M. P. (2018). Perkembangan Pemanfaatan Area Karang Bengang Di Antara Desa Pakraman Tegallalang Dan Sapat. *UNDAGI: Jurnal Ilmiah Arsitektur*, 6(1), 1–12. <https://doi.org/https://doi.org/10.22225/undagi.6.1.773.1-12>
- Paturusi, S. A., & Diartika, I. W. (2010). Menuju Kota Hijau, Melalui Kearifan Lokal (Memberdayakan Potensi Terpendam Tri Kahayangan Di Denpasar Sebagai Hijauan Kota Yang Abadi). *Local Wisdom*, 2(1).
- Prawita, N. K. R. D. R., Putra, I. G. N. A. N. S., Agung, P. I. G., & Suarioka, I. K. (2024). Pengaruh Globalisasi Terhadap Kebudayaan Bali. *Dharmasmrti*, 24(2), 1–8. <https://doi.org/https://doi.org/10.32795/ds.v24i2.6716>
- Ristawati, R., Salman, R., Sukartini, N. M., Annisa, F. N., Silagen, E. B., Malik, R. Al, Pemerintahan, H., Hukum, F., & Airlangga, U. (2025). Urgensi Pembuatan Peraturan Desa Berbasis Nilai Lokal di Desa Taro-Bali. *Dedikasi Hukum*, 4(3), 316–336. <https://ejournal.umm.ac.id/index.php/jdh/index>
- Senoaji, G. (2010). Masyarakat Baduy, Hutan, Dan Lingkungan (Baduy Community, Forest , and Environment). *Manusia Dan Lingkungan*, 7(2), 113–123. <https://doi.org/https://doi.org/10.22146/jml.18710>
- Sukmaningrum, P. S., Widiastuti, T., Aprilianti, L., Dwi Aprilianto, E., & Madyan, M. (2020). The Challenge and the Impact of Green Belt as an Air Pollution Control. In *International Journal of Innovation, Creativity and Change*. www.ijicc.net (Vol. 10, Issue 12). www.ijicc.net
- Suyoga, I. P. G. (2017). Ruang Ideal Bali Dalam Tekanan Globalisasi. *Dharmasmrti: Jurnal Ilmu Agama Dan Kebudayaan*, 17(1), 24–30. <https://doi.org/10.32795/ds.v16i01.70>
- Swanendri, N. M., & Suryada, I. G. A. B. (2023). Sistem Pertahanan Pada

- Kawasan Desa Bali Aga di Kabupaten Karangasem. *Jurnal Arsitektur Lansekap*, 9(2), 291–300.
<https://doi.org/10.24843/JAL.2023.v09.i02>
- Wijaya, I. G. K. A., Utami, N. W. F., & Gunadi, I. G. A. (2020). Identifikasi lanskap Karang Bembang di Desa Buahon, Kecamatan Tabanan, Kabupaten Tabanan. *Jurnal Arsitektur Lansekap*.
<https://doi.org/10.24843/jal.2020.v06.i02.p04>
- Xie, X., Kang, H., Behnisch, M., Baildon, M., & Krüger, T. (2020). To what extent can the green belts prevent urban sprawl?-A comparative study of Frankfurt am Main, London and Seoul. *Sustainability (Switzerland)*, 12(2).
<https://doi.org/10.3390/su12020679>
- Yudiantini, made. (2016). Seminar Nasional Tradisi dalam Perubahan: Arsitektur Lokal dan Rancangan Lingkungan Terbangun-Bali, 3 November 2016 iii E d i t o r Desain halaman sampul I Putu Zenit Arimbhawa. *Prosiding Seminar Nasional Tradisi Dalam Perubahan: Arsitektur Lokal Dan Rancangan Lingkungan Terbangun-Bali*.