The International Journal of Social Sciences World
TIJOSSW is Available Online at:
https://www.growingscholar.org/journal/index.php/TIJOSSW
Vol. 07 No. 01, January- June 2025, pages: 349~357
DOI: https://doi.org/10.5281/zenodo.15825877
ISSN **2690-5167**
Growingscholar Publisher

The Use of *Godel Selem Injin* in Bulian Village's Sacred Ritual

I Komang Sumaryana Putra[1], Si Gede Bandem Kamandalu[2], Ni Luh Made Maitrya Putri[3]

Article history:
Received: May 01, 2025; Accepted: June 24, 2025; Displayed Online: June 30, 2025; Published: June 30, 2025

Keywords

Sacred ritual;

Godel Selem Injin;

Ritual materiality;

Interdisciplinary approach;

Cultural preservation;

Abstract

This study explores Bulian Village's sacred ritual, focusing on the symbolic and material roles of the *Godel Selem Injin* (black calf). Utilizing an interdisciplinary approach that integrates anthropology, archaeology, and linguistics, the research explores ritual language, incantation structure, and material evidence to understand how the black calf functions as both a symbol and a medium within the ritual. Findings indicate that the ritual not only sustains a cosmological balance by linking the human and spiritual realms but also faces contemporary challenges that threaten its continuity. The study emphasizes the need for community-based preservation and digital documentation to safeguard this unique cultural practice.

1. Introduction

Bulian Village, a traditional village in Kubutambahan District, Buleleng, is one of Bali's ancient villages known for its rich spiritual heritage. Among its distinctive rituals is the *Pecaruan Agung*, a grand purification ceremony held in the seventh month of the Balinese Saka calendar, involving the rare sacrifice of a completely black calf (*Godel Selem Injin*, a young Balinese cow selected for its uniform dark features). Central to this ritual is the *Godel Selem Injin*, which is venerated as a sacred object that bridges the human world with the spiritual realm. This study is motivated by the need to explore how the black calf operates simultaneously as a potent symbol and as a tangible medium that conveys ritual meaning. Moreover, it addresses the pressing issue of cultural preservation amid modern pressures, aiming to provide a nuanced understanding of the ritual's philosophical underpinnings and its role in sustaining community identity.

[1] Udayana University, Denpasar – Bali, Indonesia. *Email:* sumaryana_putra@unud.ac.id
[2] Udayana University, Denpasar – Bali, Indonesia
[3] Udayana University, Denpasar – Bali, Indonesia

The significance of the *Godel Selem Injin* in Bulian Village's ritual practices can be understood through multiple disciplinary lenses. From an anthropological perspective, the black cow represents a material manifestation of cultural beliefs and values that have been shaped by the community's interaction with its environment. The theory of cultural materialism, as articulated by Harris (1966), suggests that ideas and cultural practices emerge from the dialectic between humans and their material surroundings, rather than from abstract or mystical sources. In this context, the selection of a black cow for ritual purposes reflects specific material conditions and ecological relationships that have influenced the community's cultural development.

Archaeological evidence provides historical depth to our understanding of these ritual practices. Inscriptions from the Old Balinese period (9th-14th centuries CE) document the existence of *caru* or *pacaru* ceremonies, which were performed as purification rituals in response to calamities or inauspicious events. The *Bwahan* E inscription (1181 CE) specifically mentions the *caru prayascitta* ritual, which was conducted when a village experienced *wastwasambhawotpata*, inexplicable occurrences believed to bring misfortune. Similarly, the *Trunyan* B inscription (911 CE) details the offerings required for *caru* ceremonies, including specific quantities of rice, spices, and other materials. These historical records suggest a remarkable continuity in ritual practices from the Old Balinese period to the present day, while also revealing how these practices have adapted to changing social and environmental contexts.

The linguistic dimension of the ritual, particularly the terminology and incantations associated with the *Godel Selem Injin*, further enriches our understanding of its cultural significance. The ritual language known as *Saa* serves as a specialized communicative medium that bridges the human and divine realms. This sacred language employs formal registers, hierarchical address forms, and specialized vocabulary that reflect the cosmological worldview of the Bulian community (Mayuko, 2015). The etymology of "*Godel Selem Injin*" itself—referring specifically to a pure black young cow (calf) — carries significant cultural weight, with "*selem*" (black) symbolically associated with Dewa Wisnu, the preserver deity in Hindu cosmology. The ritual incantations, characterized by formulaic openings, parallelistic structures, and repetitive patterns, create a rhythmic cadence that enhances the ceremonial atmosphere and marks the speech as distinct from everyday communication, a phenomenon also observed in other Indonesian ritual contexts (Raru, 2016; Ama Kamuri & Sabon Ola, 2023).

By integrating these anthropological, archaeological, and linguistic perspectives, this study aims to provide a comprehensive analysis of the *Godel Selem Injin*'s role in Bulian Village's sacred ritual. It seeks to illuminate how material objects, historical continuity, and linguistic practices converge in ritual contexts to create meaningful cultural experiences that sustain community identity and cosmological balance. Furthermore, it examines the challenges facing the preservation of this ritual tradition in the face of modernization and environmental change, and proposes strategies for its documentation and revitalization.

2. Materials and Methods

The research was conducted in Bulian Village during the *Pecaruan Agung* ceremony on 28 January 2025, which was held on *Tilem Sasih Kepitu*—the darkest night of the seventh month in the Balinese Saka calendar. This moment is considered highly sacred and powerful. The timing of the ceremony is not arbitrary but follows the Balinese calendrical system, which weaves together astronomical cycles and spiritual cosmology. *Tilem Sasih Kepitu* is also known as *Siwa Ratri*, the night of Lord Shiva, a time dedicated to deep introspection, meditation, and purification. The study engaged key informants,

including traditional custodians and community members who actively participate in the ritual. Data were collected over a series of ritual events through a combination of ethnographic observation, in-depth linguistic interviews, and archaeological examination. An interdisciplinary framework shaped the research, using data triangulation and semiotic analysis to interpret the symbolic significance of color, language structures, and material culture within the ritual context. Key informants included traditional ritual priests (*Jero Prawayah*), village elders with extensive knowledge of ritual traditions, and community members who actively participate in the ceremony. The selection of informants was based on their recognized expertise and involvement in the ritual, ensuring that the data collected represented authentic local knowledge and practices.

The research employed a multi-method approach to data collection, reflecting its interdisciplinary framework: 1.) Ethnographic Observation: Researchers observed multiple instances of the *Pecaruan Agung* ceremony, documenting the preparation, selection, and ritual use of the *Godel Selem Injin*. Field notes and photographic documentation captured the material aspects of the ritual, including the physical characteristics of the black cow, the spatial arrangement of ritual elements, and the sequence of ceremonial actions; 2.) In-depth Interviews: Semi-structured interviews were conducted with ritual specialists and community members to elicit their understanding of the symbolic significance of the Godel Selem Injin, the criteria for its selection, and the perceived efficacy of the ritual. These interviews also explored local ecological knowledge related to cattle breeding and the availability of black cows in the region; 3.) Linguistic Analysis: The research employed a linguistic anthropological approach to analyze the ritual language (*Saa*) used in the Pecaruan Agung ceremony. Audio recordings of ritual speech were transcribed and analyzed for their structural features, lexical choices, and pragmatic functions, following methodological approaches established in studies of Balinese ritual language (Ardiyasa & Anggraini, 2021). Particular attention was paid to formulaic expressions, specialized terminology, and the use of honorific registers that characterize ritual communication. Etymological analysis of key terms, including "*Godel Selem Injin*," was conducted through consultation with ritual specialists and comparison with Old Balinese linguistic sources. The research also examined the historical development of ritual language through analysis of textual sources, including the awig- awig (traditional regulations) of Bulian Village dating back to 1398 CE, with special attention to forms of honorific address characteristic of Bali Aga dialects (Mayuko, 2015); 4.) Archaeological Investigation: The research examined material artifacts associated with the ritual, including ritual implements, offering containers, and animal remains from previous ceremonies. Additionally, historical inscriptions from the Old Balinese period (9th-14th centuries CE) were analyzed to trace the historical development of caru rituals and their material components. The data analysis employed an interdisciplinary framework that integrated theoretical perspectives from anthropology, archaeology, and linguistics: 1.) Cultural Materialism, following Harris's (1966) approach, the analysis examined how the material conditions of Bulian Village, including its ecological setting and economic activities, have shaped the development and persistence of the *Godel Selem Injin* ritual; 2.) Cultural Ecology, drawing on Steward's theory of cultural ecology, the research investigated the reciprocal relationship between the ritual practice and the local environment, particularly how changes in cattle breeding and agricultural practices have affected the availability and selection of black cows for ritual purposes; 3.) Historical Continuity Analysis, archaeological data from Old Balinese inscriptions were compared with contemporary ritual practices to identify patterns of continuity and change in the use of black cows in purification ceremonies; 4.) Semiotic Analysis, the symbolic significance of the black cow was analyzed through a semiotic framework, examining how color symbolism, material properties, and ritual actions contribute to the cow's efficacy as a mediator between human and spiritual

realms. Data triangulation was employed to cross-verify findings from different sources and methods, ensuring the reliability and validity of the research conclusions. This approach allowed for a comprehensive understanding of the *Godel Selem Injin*'s role in Bulian Village's sacred ritual, encompassing its material, historical, linguistic, and symbolic dimensions.

3. Results and Discussions

The study revealed that the *Godel Selem Injin* plays a critical role as both a symbol and a material agent within the ritual, effectively linking the human and spiritual domains. The phrase *selem injin* literally means "pitch black" or "black like black glutinous rice" ("*selem*" = black, "*injin*" = black glutinous rice). In the context of this ceremony, the selection of a young calf with this color carries strong symbolic significance. In Balinese Hindu cosmology, black is often associated with the deity Wisnu, the preserver deity of the universe. Therefore, the use of an animal with a *selem injin* color in the offering is not merely an aesthetic preference but a linguistic and symbolic marker referring to the power of preservation and balance. This demonstrates how language is used to encode spiritual and cosmological meanings into the physical attributes of ritual objects, making these objects representations of divine concepts.

Anthropological observations confirmed that the selection criteria for the cow—emphasizing its black color and specific age—reinforce social hierarchies and ritual authenticity. Linguistic analysis uncovered that the term *Godel Selem Injin* carries deep etymological roots associated with sacredness, while the incantations, rich in parallel structures and cosmological metaphors, further enhance its ritual potency. Archaeological evidence, including the continuity of ritual artifacts dating back to prehistoric times, supports the notion of a long-standing tradition. The interdisciplinary discussion integrates these findings, highlighting how the interplay between symbolic color, ritual language, and material artifacts not only fortifies the ritual's spiritual dimensions but also faces challenges from modernization, which threatens both the physical availability of the sacred calf and the transmission of ritual knowledge.

The *Godel Selem Injin* serves as a powerful material symbol within Bulian Village's sacred ritual, embodying multiple layers of meaning that connect the community to both its ancestral traditions and the spiritual realm. Ethnographic observations revealed specific criteria for selecting the appropriate cow for the ritual: it must be completely black without any markings, young (typically between 1-2 years old), and free from physical defects. These criteria reflect not merely aesthetic preferences but deeply held beliefs about purity and efficacy in ritual contexts. From the perspective of cultural materialism, the selection of a black cow can be understood as a product of the community's interaction with its material environment. As noted in the anthropological data, black cows were historically preferred for ritual purposes partly because they were observed to be more docile ("*polos*") and thus more manageable during ceremonies. This practical consideration became ritualized over time, transforming a material advantage into a symbolic requirement. This finding aligns with Harris's (1966) assertion that "matter influences human consciousness, not the other way around," suggesting that the symbolic significance of the black cow emerged from concrete material experiences rather than abstract theological concepts.

The color symbolism associated with the *Godel Selem Injin* further illustrates its role as a mediator between worlds. In Balinese cosmology, black is associated with the direction of north and the deity Wisnu, who represents preservation and stability. Informants consistently described the black calf as having the capacity to absorb negative energies (*bhuta kala*) from the environment, functioning as a kind of spiritual purifier. This purification capacity is not

merely symbolic but is understood to be materially embedded in the cow's black coloration, which is believed to attract and neutralize malevolent forces.

Archaeological evidence from Old Balinese inscriptions provides compelling documentation of the historical depth of purification rituals involving animal offerings. The Bwahan E inscription (1181 CE) explicitly mentions the caru prayascitta ritual as a response to *wastwasambhawotpata*—inexplicable occurrences believed to bring misfortune to a village. Similarly, the Trunyan B inscription (911 CE) details specific offerings required for caru ceremonies, including measured quantities of rice and spices. While these ancient inscriptions do not specifically mention the use of black calf, they establish the antiquity of purification rituals that continue to be practiced in contemporary Balinese communities like Bulian Village.

The comparison between historical records and contemporary practices reveals both continuity and adaptation in ritual traditions. The fundamental purpose of this ritual—to purify the environment and restore cosmic balance—has remained consistent over centuries. However, the specific material components and procedural details have evolved in response to changing social, economic, and environmental conditions. For instance, while ancient inscriptions mention rice offerings measured in "*tempurung kelapa*" (coconut shells), contemporary rituals in Bulian Village incorporate more elaborate offerings that reflect the community's agricultural abundance and artistic traditions.

This historical perspective challenges simplistic notions of cultural preservation that emphasize unchanging tradition. Instead, it suggests that the resilience of the *Godel Selem Injin* ritual lies precisely in its capacity for adaptive continuity—maintaining core symbolic functions while adjusting material practices to contemporary contexts. As one elder informant explained, "The essence of the ritual remains the same, but how we perform it must respond to the conditions of our time."

Ecological Dimensions of Ritual Practice

The cultural ecology approach reveals important connections between environmental conditions and ritual practices in Bulian Village. The availability of black cows for ritual purposes is directly influenced by local cattle breeding practices, which have undergone significant changes in recent decades. Traditional cattle breeding, which once favored diverse coat colorations including pure black, has increasingly given way to commercial breeding focused on productivity rather than ritual suitability. Informants reported growing difficulty in finding appropriate black cows for the *Pecaruan Agung* ceremony, often having to search in neighboring villages or even distant regions. This scarcity has economic implications, as the price of ritually suitable black cows has increased substantially, placing additional financial burden on the community. Some informants expressed concern that this ecological and economic pressure might eventually force modifications to the ritual requirements, potentially compromising its perceived efficacy. The reciprocal relationship between culture and environment, as theorized by Steward, is evident in how the community has responded to these challenges. Some families have begun selectively breeding black cattle specifically for ritual purposes, creating a specialized ecological niche shaped by cultural requirements. Others have explored alternative interpretations of ritual texts that might allow for more flexibility in the selection criteria while maintaining the ceremony's essential purpose.

Linguistic Dimensions of Ritual

The analysis of the ritual language (*Saa*) used in the Pecaruan Agung ceremony revealed sophisticated linguistic structures that serve crucial communicative and symbolic functions. The *Saa* language operates as a specialized code that mediates between the human and divine realms, characterized by several distinctive features:

1. **Hierarchical Address Forms**: The ritual speech employs elaborate honorific forms that establish clear hierarchical relationships between the human supplicants and the divine beings addressed. For example, the repeated use of "*Singgih Bhatara*" (Honored Deity) and "*tityang*" (*titiang/hamba*/I, your humble servant) creates a linguistic framework that positions the ritual specialist as a subordinate petitioner before divine authority. This pattern of hierarchical address is consistent with honorific forms documented in Bali Aga dialects used in religious contexts (Mayuko, 2015).

2. **Formulaic Expressions**: The ritual speech follows prescribed formulaic patterns, particularly evident in the opening invocation: "*Singgih nawegang ttyg ring Ratu Sasuhunan sami sane keayat rahina mangkin ttyg jagi ngaturang tepung tawar pengeresik bakti mangda ning bersih bakti sane jagi katur ring singgih Bhatara*" (Honored Deity, I humbly beg your pardon, on this day I offer *tepung tawar* as purification so that the devotion offered to you is pure and clean). These formulas serve as ritual frames that mark the transition from ordinary to sacred communication, a pattern consistent with ritual speech acts documented in other Indonesian ceremonial contexts (Raru, 2016).

3. **Specialized Ritual Vocabulary**: The *Saa* language incorporates specialized terminology that carries specific ritual meanings, including "*tepung tawar*" (purification powder made from rice, intaran leaves, and turmeric), "*toya ning*" (holy water), and "*banten panyawangan*" (a specific type of offering). This specialized lexicon constitutes a distinct register that is largely unintelligible to those not initiated into ritual knowledge, similar to specialized vocabularies documented in other ritual contexts throughout Indonesia (Ama Kamuri & Sabon Ola, 2023; Ardiyasa & Anggraini, 2021).

4. **Cosmological References**: The ritual language explicitly references Balinese cosmological concepts, particularly the *ngider Bhuana* (eight cardinal directions plus center) in the phrase "*saking purwa daksina, pascima, utara ring sudut-sudut ring tengah*" (from east, south, west, north, and in the corners and center). These directional references situate the ritual within a cosmological framework that maps sacred space.

5. **Parallelistic Structures**: The ritual speech employs extensive parallelism, with similar syntactic structures repeated with slight variations. This creates a rhythmic quality that enhances the ceremonial atmosphere and aids in memorization of lengthy ritual texts.

The historical depth of this ritual language is evidenced by its connection to the *awig-awig*

(traditional regulations) of Bulian Village, which date back to 1398 CE. The ritual language preserves archaic forms and expressions that are no longer used in everyday communication, serving as a linguistic repository of cultural memory. The continued use of this specialized language in contemporary ritual contexts demonstrates remarkable linguistic continuity despite significant social and cultural changes in Balinese society. Particularly significant is the terminology surrounding the *Godel Selem Injin* itself. Informants explained that "*selem*" (black) is symbolically associated with *Dewa Wisnu*, the preserver deity in Hindu cosmology, while the requirement for complete blackness (hair, skin, and hooves all black) reflects the concept of ritual purity and completeness. The ritual language explicitly connects the black cow to *Ida Bhatara Siwa*, describing it as "*Linggane Bhatara Siwa sane sembah dados Guru Agung Swadyaya Utama ring jagat raya*" (the lingam of Lord Shiva who is worshipped as the Supreme Teacher in the Universe). The dichotomy between *sekala* (visible world) and *niskala* (invisible world) is linguistically encoded in the *Saa* (ritual speech), particularly in the closing formula: "*Ring sekala tityang sane ngemargiang, ring niskala Ida Ratu sareng sami sane numusang baktin ikrama sami*" (In the visible world it is I who perform, in the invisible world it is You, the Deities, who receive the devotion of all). This linguistic framing establishes the ritual as a point of intersection between these two realms, with the ritual specialist serving as mediator through specialized language use.

Contemporary Challenges and Preservation Efforts

The research identified several challenges facing the continuation of the *Godel Selem Injin* ritual in its traditional form. The specialized knowledge required for proper ritual performance, including the selection criteria for the black cow and the correct recitation of mantras, has traditionally been transmitted through apprenticeship and oral tradition. Younger generations' increasing engagement with formal education and urban employment has disrupted these transmission patterns. Some community members, influenced by modernist interpretations of Hinduism, have questioned the theological basis for animal offerings in purification rituals. This has created tensions between traditionalists who emphasize the ritual's historical authenticity and reformists who advocate for symbolic substitutions. The rising costs associated with acquiring a ritually appropriate black cow and preparing the elaborate offerings have made the full traditional ceremony increasingly burdensome for the community. In response to these challenges, Bulian Village has initiated several preservation efforts. These include the documentation of ritual procedures through video recordings and written manuals, the establishment of a ritual education program for young community members, and the creation of a communal fund to support the acquisition of appropriate black calfs for major ceremonies. These efforts reflect the community's recognition that preserving the *Godel Selem Injin* ritual requires not only maintaining its material and symbolic elements but also adapting its supporting social structures to contemporary conditions. The interdisciplinary analysis presented here suggests that the resilience of the *Godel Selem Injin* ritual lies in its multidimensional significance—as a material practice embedded in ecological relationships, a symbolic system connecting the community to cosmic forces, a linguistic tradition preserving ancient knowledge, and a historical link to ancestral practices documented in ancient inscriptions. This multidimensionality has allowed the ritual to adapt to changing conditions while maintaining its core function as a mechanism for purification and cosmic balance.

4. Conclusion

This interdisciplinary study of the *Godel Selem Injin* in Bulian village's sacred ritual has revealed the complex interplay between material culture, symbolic meaning, historical continuity, and ecological context in the maintenance of traditional ritual practices. By integrating anthropological, archaeological, and linguistic perspectives, we have gained a more comprehensive understanding of how the black young cow functions simultaneously as a tangible object and a powerful symbol that mediates between the human and spiritual realms. These conclusions have significant implications for cultural preservation efforts in Bali and beyond. They suggest that preserving traditional rituals like the *Pecaruan Agung* requires attention not only to their performative aspects but also to their material, ecological, and social foundations. Digital documentation, while valuable, must be complemented by efforts to maintain the material conditions that make the ritual possible—including, in this case, the availability of ritually appropriate black cows.

Future research directions should include more detailed archaeological investigations of ritual sites and artifacts to further elucidate the historical development of this ceremonies in Bali. Additionally, comparative studies of similar purification rituals in other Balinese communities could provide insights into regional variations and adaptations. Finally, longitudinal research tracking changes in the *Godel Selem Injin* ritual over time would contribute to our understanding of how traditional practices adapt to contemporary challenges while maintaining their cultural significance. In conclusion, the *Godel Selem Injin* in Bulian Village's sacred ritual represents a remarkable example of how material objects, historical traditions, linguistic practices, and ecological relationships converge in ritual contexts to create meaningful cultural experiences that sustain community identity and cosmological balance. Its preservation requires not only documentation but active support for the multidimensional systems that enable its continued practice in a changing world.

Acknowledgements

We express our profound gratitude to the community of Bulian Village, particularly the ritual specialists and elders who generously shared their knowledge and allowed us to observe their sacred ceremonies. Special thanks to I Gede Suardana Putra and *Jero Prawayah* Made Pawitra for their invaluable insights and patience throughout the research process. We also acknowledge the assistance provided by the local government officials who facilitated our access to the research site and historical documents. This research was supported by the OCSEAN (Oceanic and South East Asian Navigators), though the views expressed are solely those of the authors. We are grateful to our colleagues at Faculty of Humanities and the CIRHSS (Centre for Interdisciplinary Research on the Humanities and Social Sciences), Udayana University for their constructive feedback on earlier drafts of this manuscript, and to the anonymous reviewers whose suggestions significantly improved the final version.

References

Ardiyasa, I. N. S., & Anggraini, P. M. R. (2021). Bentuk-bentuk sesapa dalam pelaksanaan ritual Saṃskāra di Desa Pedawa, Buleleng, Bali. Kamaya: Jurnal Ilmu Agama, 4(3), 442–457. https://doi.org/10.37329/kamaya.v4i3.1436

Berg, B. L., & Lune, H. (2004). Qualitative research methods for the social sciences (5th ed.). Pearson.

Callenfels, P. V. van Stein. (1926). Epigraphia Balica I. VBG LXVI, Derde Stuk. G. Kolff & Co.

Goris, R. (1954). Prasasti Bali I. NV. Masa Baru.

Kamuri, P. A., & Ola, S. S. (2023). Fungsi bahasa dalam tuturan ritual Rangga Ngindi Dewa dalam budaya masyarakat Tana Righu di Sumba Barat. Jurnal Lazuardi, 6(2), 140–149. https://doi.org/10.53441/jl.vol6.iss2.88

Kumbara, A. N. A., Putra, I. N. D. (Eds.), & Dewi, T. I. R. K. (Ed.). (2024). Teori-teori antropologi: Evolusi, difusi kebudayaan, dan fungsionalisme struktural. PT Rajagrafindo Persada.

Kurniawan, M. F. (2020). Sapi, antara hewan suci dan konsumsi! (Keberadaan hewan sapi dalam perspektif ajaran Saiva Siddhanta, Veda Manu Samhita, Lontar Devi Bhagavatam, Pantheisme, dan teori ekologi agama). Jurnal Pasupati, 7(2), 77–89.

Laksmi, N. K. P. A. (2017). Identitas keberagaman masyarakat Bali Kuno pada abad IX–XIV Masehi: Kajian epigrafis [Disertasi tidak diterbitkan, Universitas Indonesia].

Mayuko, H. (2015). Bentuk hormat dialek bahasa Bali Aga dalam konteks agama. Linguistik Indonesia, 33(2), 121–134. https://doi.org/10.26499/li.v33i2.33

McDonough, J., & Shaw, C. (2012). Materials and methods in ELT: A teacher's guide (3rd ed.). Wiley-Blackwell.

Raru, G. (2016). Tuturan ritual Hambor Haju pada masyarakat Manggarai: Sebuah kajian linguistik kebudayaan. Paradigma: Jurnal Kajian Budaya, 6(1), 15–24. https://doi.org/10.17510/paradigma.v6i1.79

Susilo, R. K. D. (2012). Sosiologi lingkungan. Rajawali Pers.