



The *Serba Empat* Cosmological Structure of Dayak Communities along the Barito River: A Lévi-Straussian Structural Analysis

Imam Qalyubi^{1*}, Apni Ranti², Misrita Misrita³, Huili Li⁴, Irish Mae F. Dalona⁵

^{1,2} Universitas Islam Negeri Palangka Raya, Indonesia

³ Universitas Palangka Raya, Indonesia

⁴ Yunnan University, China

⁵ Mindanao State University-Iligan Institute of Technology, Philippines

¹imamqalyubi@gmail.com ²apniranti@iain-palangkaraya.ac.id ³misrita@for.upr.ac.id

⁴unalhl@hotmail.com, ⁵irishmae.fernandez@g.msuiit.edu.ph

Article History:

Received:

27-06-2026

Revised:

21-07-2026

Accepted:

17-08-2026

Keywords:

Dayak Cosmology, Serba Empat, Cultural Symbolism, Structural Anthropology, Islamic Acculturation

*Correspondence Address:

imamqalyubi@gmail.com

Abstract:

The cosmological worldview of Dayak communities along the Barito River in Central Kalimantan is expressed through diverse cultural practices, yet the underlying symbolic structure connecting these practices remains insufficiently examined. This study analyzes the *serba empat* (fourfold) cosmological structure as an underlying symbolic system of Dayak cultural life. Using a qualitative ethnographic approach, the study was conducted in South Barito, North Barito, and Barito Kuala, involving traditional leaders, religious figures, and cultural practitioners as key informants. Data were collected through participant observation, semi-structured interviews, documentation, and analysis of cultural and customary texts, and analyzed using Miles et al.'s interactive model and Lévi-Strauss's structural anthropology. The findings demonstrate that *serba empat* functions not merely as a numerical principle but as a relational cultural structure manifested in religious symbols, spatial orientations, traditional architecture, agricultural practices, healing traditions, oral narratives, and customary institutions. Expressions such as *fatehah epat*, *malaikat epat*, and *sahabat epat* illustrate the integration of the fourfold principle into Islamic Dayak cultural life, while spatial and ritual arrangements reflect complementary relationships among humans, nature, ancestors, and the transcendent realm. The findings further indicate that *serba empat* persists through cultural transformation, including the incorporation of Islamic meanings into existing symbolic structures. The study extends Lévi-Strauss's structural anthropology beyond myth analysis by demonstrating how indigenous cosmology operates as a relational framework connecting symbolic systems, cultural knowledge, and everyday practices.

This is an open-access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.





Introduction (مقدمة)

Culture provides a system through which societies understand the world and organize relationships among humans, nature, and transcendent forces. In anthropology, cosmology refers to a conceptual framework through which such relationships are interpreted and expressed through symbols, rituals, spatial arrangements, myths, language, and other cultural practices (Geertz, 1973; Lévi-Strauss, 1963). From a structuralist perspective, these cultural expressions constitute interconnected elements rather than isolated phenomena. Lévi-Strauss (1963), drawing on the structural linguistics of Saussure (1959), argues that meaning emerges through relationships among symbolic elements within an underlying structure. This perspective enables cosmology to be examined as a system of knowledge that organizes cultural meanings and practices across generations.

This perspective is particularly relevant to the Dayak communities of Kalimantan, whose cultural systems encompass religious beliefs, settlement patterns, traditional architecture, agriculture, rituals, traditional medicine, folklore, and cultural symbols. Schärer (1963) identified cosmological structures in Ngaju Dayak religion, while Coomans (1987) situated Dayak culture within its historical and social dynamics. Baier (2007) further demonstrated that Dayak belief systems have undergone transformation through interactions with Islam and Christianity, while Luardini (2008) showed that Ngaju Dayak legends contain symbolic structures representing cultural values and worldviews. More recent studies have expanded this discussion toward indigenous knowledge, ecological relationships, cultural identity, and cultural continuity. Murhaini and Achmadi (2021) examined the ecological knowledge embedded in Dayak agricultural practices; Lastaria et al. (2022) highlighted the historical, social, and cultural meanings of Ngaju Dayak symbols; Niko (2025) demonstrated the ecological significance of Dayak Benawan cosmology; and Hidayat (2025) examined the relationship between cultural identity and the continuity of Dayak Basap practices.

Recent studies have also demonstrated that Dayak cosmology continues to operate through symbolic and cultural practices. Maharani and Priilosadoso (2025) identified cosmological meanings in Rumah Betang visual symbols, particularly through representations of the hornbill, Nabau dragon, and ancestral spirits. Indrahastuti et al. (2025) demonstrated that the Hudoq Kita' performance represents Kenyah Dayak cosmology while undergoing reinterpretation in contemporary religious and social contexts. Vinco et al. (2025) further showed that Dayak cultural symbols contribute to identity formation and intergenerational cultural transmission. Collectively, these studies confirm that Dayak cosmology functions not merely as a traditional belief system but as a dynamic system of symbols and indigenous knowledge.

Within this context, the Dayak communities along the Barito River present a distinctive *serba empat* (fourfold) cosmological principle. The concept is manifested not only through spatial orientations but also through religious symbols such as *fatehah empat*, *malaikat empat*, *sahabat empat*, and *patih sampurna*, as well as ritual offerings, *wayang* symbols, traditional house arrangements, agricultural practices, and healing systems. The arrangement of ritual objects, including *cucur*, *apam*, *lamang*, *ketupat*, *tapai*, *gagatas*, *kumasirat*, *cingkaruk batutuk*, *srikaya*, *kakulih*, *punjung ampat*, and other ritual forms, further indicates that the number four operates as a symbolic principle rather than merely a numerical convention. These manifestations suggest a relational system connecting humans, nature, ancestors, and the divine or transcendent realm.

Nevertheless, previous studies have generally examined particular expressions of Dayak culture separately, including religious systems, rituals, ecological knowledge, visual symbols, cultural identity, and traditional practices. Although these studies provide important insights into Dayak cultural diversity, they have not sufficiently explained how these diverse manifestations are interconnected through an underlying symbolic structure. The central research gap therefore lies in the absence of a structural analysis that explains *serba empat* as a coherent cosmological system organizing multiple domains of Dayak cultural life along the Barito River. In particular, the interrelationship between its religious, spatial, architectural, agricultural, medicinal, narrative, and ritual manifestations has not been adequately examined through Lévi-Strauss's structural anthropology.

This study therefore aims to analyze the *serba empat* cosmological structure of Dayak communities along the Barito River through the framework of Claude Lévi-Strauss's structural anthropology. It argues that *serba empat* constitutes a deep relational structure that connects diverse cultural manifestations and organizes indigenous knowledge, social values, and the Dayak understanding of relationships among humans, nature, ancestors, and the transcendent realm. By moving beyond the analysis of individual cultural expressions toward their underlying structural relationships, this study contributes to the development of structural approaches to indigenous cosmology and offers a framework for understanding how diverse cultural practices can remain interconnected despite religious, social, and cultural transformation.



Method (منهج)

This study employed a qualitative ethnographic design informed by Claude Lévi-Strauss's structural anthropology to investigate the *serba empat* (fourfold) cosmological structure embedded in the cultural practices of Dayak communities along the Barito River. Ethnography was selected because it enables researchers to understand cultural meanings, practices, and knowledge within their natural social contexts (Creswell & Poth, 2018; Hammersley & Atkinson, 2019). The research was conducted in South Barito, North Barito, and Barito Kuala, where the fourfold cosmological tradition continues to be expressed in customary, religious, and cultural practices.

The study involved traditional leaders, religious figures, and cultural practitioners as key informants. Informants were selected purposively based on their cultural knowledge, experience, direct involvement in customary practices, and ability to explain the meanings and relationships embedded in *serba empat*. Purposive selection is appropriate in qualitative research because participants are selected according to their capacity to provide information relevant to the research questions (Creswell & Poth, 2018; Patton, 2015). The field evidence particularly included interviews with Dayak Lawangan and Taboyan customary leaders in North Barito.

Data were collected through participant observation, open and semi-structured in-depth interviews, and documentation. Ethnographic observation focused on cultural practices and their social contexts, including ritual activities, spatial concepts, traditional architecture, agricultural practices, healing traditions, oral narratives, and symbolic objects. Participant observation was used to examine not only what community members said about *serba empat*, but also how the cosmological principle was enacted in everyday cultural practices. In-depth interviews enabled informants to explain the meanings, functions, relationships, and transformations associated with the fourfold structure. The combination of observation and interviews is consistent with ethnographic research, in which cultural knowledge is examined through both observed practices and participants' interpretations (Hammersley & Atkinson, 2019; Spradley, 2016).

The interviews employed open and semi-structured questions to provide sufficient direction while allowing informants to elaborate their experiences and interpretations. The interview materials addressed cosmological concepts, religious symbols, spatial orientations, ritual practices, traditional architecture, agricultural knowledge, healing traditions, oral narratives, and customary institutions. Documentation was used to record relevant cultural objects, ritual materials, spatial arrangements, and other forms of symbolic representation. The collected materials included oral narratives, cultural practices, spatial concepts, ritual knowledge, agricultural practices, healing traditions, and symbolic objects.

Data analysis followed the interactive model of Miles et al. (2014), consisting of data condensation, data display, and conclusion drawing/verification. During data condensation, interview transcripts, field notes, observations, and documentary materials were selected and categorized according to their relevance to the *serba empat* structure. Data were subsequently displayed through thematic and structural categories, allowing recurring relationships and patterns to be identified. Conclusions were continuously compared with the empirical evidence and verified throughout the analytical process (Miles et al., 2014).

The analytical framework was grounded in Lévi-Strauss's structural anthropology. Following this perspective, the analysis moved from observable cultural expressions toward the relationships underlying those expressions. The analysis identified symbolic units, binary oppositions, complementary relationships, transformations, and recurring relational patterns. This approach enabled the study to examine whether apparently different cultural practices, such as Islamic symbolism, spatial orientation, architecture, agriculture, healing, and oral narratives, could be understood as manifestations of an underlying fourfold structure (Lévi-Strauss, 1963). Thus, ethnography provided the empirical description and contextual understanding of cultural practices, while structural anthropology provided the interpretive framework for reconstructing their deeper relational organization.

The credibility of the findings was strengthened through source and methodological triangulation, participant verification, and sustained engagement with the research setting. Source triangulation involved comparing information obtained from traditional leaders, religious figures, and cultural practitioners, while methodological triangulation compared interview, observation, and documentary evidence. Triangulation and participant verification are widely recognized strategies for strengthening the credibility of qualitative research (Lincoln & Guba, 1985; Creswell & Poth, 2018). The interpretation was also repeatedly compared with field evidence to minimize conclusions that could not be supported by the participants' accounts or observed cultural practices.

Result (نتائج)

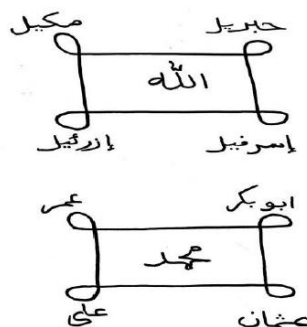
The Serba Empat (Fourfold) Cosmological Structure as the Foundational Structure of Dayak Culture

The field data reveal that the *serba empat* cosmological structure is manifested across multiple domains of Dayak cultural life along the Barito River. Evidence was collected in Barito Selatan and Barito Utara through open and semi-structured interviews, including an interview with a Dayak Lawangan and Taboyan customary leader in North Barito. The collected materials consisted of oral narratives, cultural practices, spatial concepts, ritual knowledge, agricultural practices, healing traditions, and symbolic objects. Taken together, these materials indicate that the fourfold principle operates as a relational structure connecting different cultural domains rather than as an isolated numerical pattern.

A prominent manifestation is found in the symbolic configuration of Dayak communities

who practice Islam. The research report documents *fatehah epat*, *malaikat epat*, and *sahabat epat*. *Fatehah epat* refers to Al-Fatihah, An-Nas, Al-Falaq, and Al-Ikhlās; *malaikat epat* refers to Jibril, Mikail, Israfil, and Izrail; and *sahabat epat* refers to Abu Bakr, Umar, Uthman, and Ali. These three configurations are represented in a *raja*-like form and, according to the report, were placed in the living rooms of some Dayak Bakumpai households.

Figure 1. Fourfold Cosmological Representation in the Islamic Dayak Community along the Barito River



Source: Qalyubi and Ranti (2020), research report, p. 4.

The significance of this configuration lies in the relationship among its elements. The four components in each category do not function as independent lists but are arranged within a symbolic spatial order surrounding a centre. The presence of a centre together with four surrounding elements creates a relational pattern in which plurality is organized into unity. From a structural perspective, the configuration demonstrates how the *serba empat* principle mediates between differentiated elements and a central symbolic order. Thus, the number four becomes a mechanism for organizing relationships between distinct symbolic categories while maintaining their coherence within a single cosmological system.

The fourfold structure is also expressed through spatial orientation. The field data identify the Dayak Central Kalimantan concepts *ngaju-ngawa* and *ngambu-liwa*. *Ngaju* refers to the upstream area of a river, while *ngawa* refers to the downstream area; *ngambu* refers to the land or central area, whereas *liwa* refers to the coastal, sea, or riverine direction. These categories demonstrate that space is culturally classified through relational distinctions. Rather than representing four unrelated directions, the categories establish complementary spatial relationships through which the community interprets its environment. In structural terms, *ngaju-ngawa* and *ngambu-liwa* demonstrate how paired oppositions can be organized within a broader fourfold configuration.

The same structural principle extends into domestic architecture. Field data indicate that house orientation, structural elements, and numerical arrangements are governed by customary rules. A properly oriented house is described as facing east; the main supporting post should be made from selected wood; supporting posts should be even rather than odd in number; and the staircase is described as having seven steps when counted from the upper level but eight when the ground level is included. These elements demonstrate that spatial and numerical rules are not merely technical arrangements. They encode a cultural preference for ordered relationships between direction, structure, number, and domestic space. The alternation between seven and eight in the counting of the staircase also illustrates how meaning depends upon the relational position from which an element is classified, a feature consistent with structural analysis.

Agricultural practices provide another substantial manifestation of the fourfold structure.

The field data document four wooden markers made from *ringin* or *dingin* wood positioned around the agricultural field. At the centre, a boat-shaped *sesulon* functions as a place for seeds, while flags of different colours serve as symbolic markers. Eggs and water are sprinkled over the seeds, and the seeds are personified as humans who depart on a journey and eventually return at harvest. The ritual movement surrounding the seeds connects departure and return with agricultural production, ancestry, and cyclical life.

Structurally, the agricultural ritual demonstrates a relationship between boundary and centre, departure and return, and separation and reintegration. The four markers establish an ordered field around a central symbolic space, while the movement of the seeds creates a temporal relationship between leaving and returning. Consequently, the *serba empat* principle operates simultaneously as a spatial and temporal code: it organizes the field as a bounded structure and interprets agricultural activity through a cycle of movement and regeneration.

The fourfold structure is likewise evident in healing and ritual practices. The field data describe *balian* or *badewa* practices involving symbolic statues, medicinal plants, water, flowers, and ritual movements. Some movements proceed forward and backward, representing life and death, while circular movement represents the cycle of life. Illness, healing, death, soil, plants, and regeneration are consequently connected within a cyclical sequence. From a structural perspective, these practices reveal how apparent oppositions—life and death, illness and recovery, departure and return—are not treated as mutually exclusive states. Instead, they are related through transformation. The healing process therefore provides a particularly clear example of how *serba empat* organizes opposing conditions into a broader relational and cyclical structure.

Finally, the fourfold organization is embedded in ritual and oral narrative traditions. Ritual materials include paired categories such as red and white porridge, male and female chickens, and representations of life and death. These paired elements demonstrate that *serba empat* does not necessarily require four physically separate objects in every ritual; rather, fourfold organization can emerge through relationships among complementary pairs. Oral narratives similarly organize characters and symbolic objects through complementary relationships. The Mahaji and Kilip narrative, for example, presents contrasting approaches to resolving a communal crisis: one character seeks a metaphysical solution through communication with the supernatural realm, while the other adopts a worldly approach through medicine. The contrast does not simply separate the two approaches but creates a relational structure between the metaphysical and worldly domains.

Across these findings, the *serba empat* structure can therefore be understood as a recurring relational grammar rather than a collection of independent cultural symbols. Its manifestations in Islamic symbolism, spatial orientation, architecture, agriculture, healing, ritual, and oral narrative consistently involve relationships among differentiated elements, complementary oppositions, centres and boundaries, and processes of transformation. In Lévi-Straussian terms, the significance of *serba empat* lies not in the number four itself but in the relationships that the fourfold arrangement makes intelligible. The empirical evidence consequently indicates that *serba empat* functions as a deep symbolic structure through which Dayak communities along the Barito River organize cultural knowledge and conceptualize relationships among humans, nature, ancestors, and the transcendent realm.

Symbolic Transformation and Cultural Continuity of the Serba Empat Cosmological Structure

The second major finding concerns the persistence of the *serba empat* structure amid changes in the religious and social contexts of Dayak communities along the Barito River. The clearest

evidence is the incorporation of Islamic concepts into an existing fourfold symbolic configuration. The expressions *fatehah epat*, *malaikat epat*, and *sahabat epat* combine Islamic theological references with a locally meaningful fourfold arrangement. These elements are represented together in a symbolic diagram and reportedly maintained a place within the domestic environment of Dayak Bakumpai households. The finding demonstrates that religious transformation does not necessarily eliminate an existing symbolic structure; instead, new religious meanings can be incorporated into an established cultural pattern.

From a structural perspective, this incorporation represents a transformation of symbolic content while preserving the relational form. The fourfold organization remains constant, whereas the elements occupying the structure are articulated through Islamic references. Thus, the relationship between continuity and change is not oppositional: cultural continuity occurs through the capacity of the existing structure to accommodate new meanings. The *serba empat* principle consequently functions as a flexible symbolic framework through which religious transformation can be culturally localized.

A similar pattern appears in agricultural practices. Although planting and harvesting have practical economic functions, the field data represent seeds as persons who depart, receive instructions, and return with their products. The seed is symbolically instructed to remember its origin and return with its “siblings” and the results of its labour. This representation establishes a relational sequence of origin, departure, movement, return, and regeneration. The agricultural ritual therefore transforms a material process into a cosmological narrative in which human, natural, and ancestral relationships are interconnected. The continuity of *serba empat* is consequently expressed not through a fixed ritual formula but through the reproduction of relational patterns within changing practical activities.

Continuity is also evident in architectural practices. Requirements concerning even rather than odd structural elements, prescribed house orientation, and restrictions on particular central arrangements indicate that customary spatial principles remain embedded in practical construction. These rules transform cosmological classifications into material structures. The house thus becomes not merely a physical shelter but a cultural representation in which spatial direction, numerical order, and social rules are interconnected. The persistence of these relationships demonstrates that cosmological knowledge continues to operate through everyday material practices.

The same structural pattern occurs in ritual practices through complementary relationships such as life–death, good–bad, male–female, and forward–backward movements. These oppositions should not be interpreted as isolated binary categories. Their cultural significance emerges from the relationship between the opposing elements and the possibility of transformation between them. Forward and backward movement, for example, establishes a relational sequence rather than simply indicating two different directions, while life and death are positioned within a broader cyclical understanding of existence. The *serba empat* structure therefore provides a means of organizing oppositions without reducing them to absolute separation.

Oral tradition provides further evidence of this structural continuity. In the Mahaji–Kilip narrative documented in Muara Teweh, the two protagonists respond differently to a communal crisis: Kilip seeks guidance through a metaphysical relationship with the supernatural world, whereas Mahaji pursues a worldly medicinal solution. Their contrasting responses establish a structural relationship between the metaphysical and worldly domains. The narrative does not simply present two unrelated solutions; rather, it places different modes of knowledge within a complementary cultural framework. This relationship reinforces the broader *serba empat* pattern in which human experience is organized through interactions between apparently different but

mutually related domains.

Taken together, these findings demonstrate that the continuity of *serba empat* does not depend on preserving identical cultural forms across generations. Instead, continuity operates at the level of the relational structure underlying changing cultural expressions. Islamic *rajah*, spatial orientation, house construction, agricultural rituals, healing practices, ceremonial objects, and oral narratives may differ in their immediate forms and functions, but they repeatedly reproduce patterns of differentiation, complementarity, opposition, centre-periphery relations, and transformation. The research report identifies these manifestations across both profane domains—including settlement, architecture, agriculture, arts, and family life—and sacred domains involving theology, morality, cultural symbols, and ritual.

The empirical pattern therefore supports a distinction between structural continuity and cultural-form transformation. Cultural forms may change in response to religious, social, and historical circumstances, while the relational principle organizing those forms remains recognizable. In this sense, *serba empat* operates as a cultural grammar: it does not prescribe one unchanging set of symbols but provides a relational framework through which new meanings can be incorporated without necessarily disrupting the underlying cultural structure. This finding provides the empirical basis for interpreting *serba empat* through Lévi-Strauss's structural anthropology and strengthens the argument that its significance lies not in the recurrence of the number four itself, but in the enduring relationships that the fourfold structure organizes.



Discussion (مناقشة)

The principal contribution of this study is the interpretation of *serba empat* as a relational cultural structure that organizes knowledge, values, and relationships among Dayak communities along the Barito River. Its significance therefore lies not in the recurrence of the number four itself, but in the relationships established among differentiated cultural elements. This finding directly addresses the research objective and provides an empirical basis for extending Lévi-Strauss's structural anthropology from myth analysis to indigenous cosmological knowledge (Qalyubi & Ranti, 2020).

Lévi-Strauss (1963) argues that cultural meaning emerges through relationships among elements within an underlying structure. The present findings support this proposition through several recurring configurations. *Fatehah epat*, *malaikat epat*, and *sahabat epat* demonstrate how Islamic theological elements are incorporated into an established fourfold arrangement. The symbolic content changes, but the relational organization remains recognizable. Similarly, *ngaju-ngawa* and *ngambu-liwa* demonstrate that spatial meaning is produced through relational distinctions between upstream-downstream and inland/central-coastal/riverine orientations. In architecture, agricultural rituals, healing practices, and oral narratives, the same principle appears through relationships between direction and space, centre and boundary, departure and return, life and death, worldly and metaphysical knowledge, and male and female. Thus, the findings support a structural interpretation in which cultural elements acquire meaning through their position and relationship within a larger system.

The agricultural and healing findings further demonstrate the importance of transformation in the Lévi-Straussian sense. In agricultural ritual, seeds symbolically move from origin to departure and subsequently return with their products, connecting spatial organization with regeneration. In healing practices, forward-backward and life-death relationships organize movement and transformation between states. The Mahaji-Kilip narrative similarly establishes a relationship between metaphysical and worldly solutions to a communal crisis. These findings indicate that *serba empat* is not simply a classificatory system but a structure through which

differences are related and transformed. This is consistent with Lévi-Strauss's emphasis on underlying relations and oppositional structures rather than isolated cultural elements (Lévi-Strauss, 1963).

Geertz (1973), Douglas (1966), and Sperber (1975) provide complementary perspectives for understanding how these structural relationships become culturally meaningful. Geertz emphasizes shared systems of meaning, Douglas highlights classification as a means of ordering social experience, and Sperber stresses the culturally mediated nature of symbolic interpretation. Together, these perspectives help explain why the fourfold relationships identified in the field are meaningful to community members rather than merely formal numerical arrangements.

The findings also correspond with broader approaches to indigenous knowledge. Sillitoe (1998) emphasizes that indigenous knowledge is produced and transmitted within particular social and cultural contexts, while Andayani et al. (2022) emphasize its interconnected character. Ingold (2000) and Kohn (2013) further emphasize relational engagement between humans, environments, and nonhuman worlds. Bird-David (1999), Descola (2013), and Viveiros de Castro (2015) similarly demonstrate the importance of relational perspectives in understanding indigenous knowledge and cosmology. The present study extends these perspectives by identifying *serba empat* as a structural principle through which relationships among cultural domains are organized and reproduced.

The interpretation is also consistent with studies of Dayak cultural continuity and ecological knowledge. Niko (2025) relates Dayak Benawan cosmology to ecological relationships, while Hidayat (2025) connects customary knowledge with Dayak Basap identity. Sinthumule (2023) and Nath et al. (2022) demonstrate the continuing relevance of traditional ecological knowledge, while Mulyoutami et al. (2009) show its contribution to environmental resource management. Maharani and Prilosadoso (2025) further demonstrate the persistence of Dayak cosmological symbolism in *Rumah Betang* visual culture, and Indrahastuti et al. (2025) show how *Hudoq Kita'* undergoes reinterpretation while retaining cosmological significance. Saptaningrum and Sulaksono (2025) likewise demonstrate the interaction between indigenous practices, agriculture, and political-ecological change. Collectively, these studies support the argument that cultural continuity can occur through reinterpretation rather than through the preservation of identical cultural forms.

The present findings clarify this process by distinguishing structural continuity from cultural-form transformation. The incorporation of Islamic meanings into *fatehah epat*, *malaikat epat*, and *sahabat epat* illustrates that new symbolic content can occupy an established relational configuration. Cultural change therefore does not necessarily imply the disappearance of an underlying structure. Instead, the structure may accommodate new meanings while retaining recognizable relationships among differentiation, opposition, complementarity, and transformation. This provides a more precise explanation of cultural continuity than a simple opposition between preservation and disappearance.

This structural continuity also has implications for cultural learning and intergenerational transmission. Because *serba empat* is embedded in architecture, agriculture, ritual, healing, oral narratives, and household symbolism, its transmission occurs through participation in culturally meaningful practices. Indigenous knowledge is consequently reproduced not only as factual information but as ways of relating, interpreting, and valuing the world (Sillitoe, 1998; Bird-David, 1999; Ingold, 2000). This observation also resonates with Andayani et al. (2022), who emphasize the interconnected character of cultural knowledge.

The educational implication, however, should remain conceptual. This study does not examine classroom interventions, curriculum implementation, student achievement, or learning outcomes. Therefore, it cannot make causal claims about educational effectiveness. Its

contribution to the *International Journal of Post-Axial: Futuristic Teaching and Learning* lies instead in demonstrating that indigenous cosmology can provide a culturally situated intellectual resource for local-content education, heritage learning, intergenerational knowledge transmission, and culturally responsive learning. Such an approach avoids reducing indigenous culture to isolated symbols and instead preserves relationships among knowledge, identity, values, environment, and community experience.

The theoretical contribution can therefore be formulated as the conceptualization of *serba empat* as a relational cultural code. Rather than treating the fourfold pattern merely as a symbolic feature, the study demonstrates how it organizes differences, establishes complementary relationships, mediates oppositions, and accommodates cultural transformation. The formulation integrates Lévi-Strauss's (1963) structural perspective with Geertz's (1973) interpretive approach, Douglas's (1966) classification theory, Sperber's (1975) symbolic interpretation, and the relational perspectives of Bird-David (1999), Sillitoe (1998), Ingold (2000), Kohn (2013), Descola (2013), and Viveiros de Castro (2015). The result is an interpretation of indigenous cosmology as a dynamic knowledge structure that can maintain coherence while undergoing historical and cultural change.

Nevertheless, the interpretation remains limited to the Dayak communities examined in the Barito River region. It does not establish that the same *serba empat* configuration is uniformly shared by all Dayak sub-ethnic groups. Historical experience, language, religious affiliation, and local cultural practices may produce different configurations elsewhere. Comparative research across Dayak communities is therefore necessary to determine whether *serba empat* represents a broader Dayak cosmological pattern or a configuration particularly associated with the Barito cultural context.

Overall, the study moves the interpretation of *serba empat* from a descriptive cultural category toward an analytical conception of relational cultural knowledge. The empirical evidence demonstrates that its recurring significance lies in the organization of differences and relationships across religious symbolism, spatial orientation, architecture, agriculture, healing, ritual, and oral narrative. In this sense, *serba empat* can be understood as a living cultural grammar through which cultural meaning, knowledge, identity, and collective memory remain structurally connected while their concrete forms continue to transform.



Conclusion (خاتمة)

This study demonstrates that *serba empat* functions as a recurring relational structure underlying diverse cultural practices among Dayak communities along the Barito River. The structure is manifested through religious symbolism, spatial orientation, traditional architecture, agricultural practices, healing traditions, rituals, and oral narratives. The principal finding is that the significance of *serba empat* lies not in the number four itself, but in the relationships, it establishes among differentiated and complementary elements, including spatial oppositions, centre-boundary relations, life-death processes, and worldly-metaphysical domains.

Theoretically, the study extends the application of Lévi-Strauss's structural anthropology from myth analysis to indigenous cosmological knowledge by demonstrating how recurring relational patterns connect otherwise diverse cultural expressions. The findings further indicate that cultural continuity can occur through transformation: symbolic contents may change, as illustrated by the incorporation of Islamic concepts, while underlying relational patterns remain recognizable.

The study is limited to Dayak communities in the Barito River region and does not establish that *serba empat* is uniformly shared by all Dayak sub-ethnic groups. Comparative research across

Dayak communities and other indigenous societies is therefore needed to determine the extent to which similar fourfold structures occur in different cultural contexts.

The findings have implications for indigenous knowledge studies and culturally situated learning by showing that cosmology can be understood as an interconnected system of knowledge rather than as a collection of isolated cultural symbols. Further research may explore how such relational cultural structures are transmitted and reinterpreted across generations and changing social contexts.

Acknowledgment (شكر وتقدير)

The authors would like to express their sincere gratitude to the Rector of IAIN Palangka Raya and the Head of the Institute for Research and Community Service (LP2M) of IAIN Palangka Raya for their institutional support and research funding, which made this study possible. The authors also extend their appreciation to all members of the research team for their valuable contributions throughout the research process, from data collection and analysis to the preparation of the manuscript. Special thanks are also addressed to the community members, cultural practitioners, informants, and all parties who provided information, assistance, access, and support during the fieldwork. Their cooperation and contributions were essential to the completion of this research. Finally, the authors acknowledge everyone who contributed directly or indirectly to this study and supported its completion.



Bibliography (مراجع)

- Andayani, N. Q. H. P., Andayani, N., Nugraheni, E., & Wardani, E. (2022). The structure of Tempuutn Langit Tana: An ethnographic study of an Indonesian myth. *Folklor/Edebiyat*, 28(112), 1135–1148. <https://doi.org/10.22559/folklor.225>.
- Baier, M. (2007). *The development of a new religion in Kalimantan, Central Borneo*. *Asian Anthropology*, 6(1), 169–182. <https://doi.org/10.1080/1683478X.2007.10552574>.
- Bird-David, N. (1999). "Animism" revisited: Personhood, environment, and relational epistemology. *Current Anthropology*, 40(S1), S67–S91. <https://doi.org/10.1086/200061>.
- Coomans, M. (1987). *Manusia Daya dahulu, sekarang, masa depan*. Gramedia.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Descola, P. (2013). *Beyond nature and culture* (J. Lloyd, Trans.). University of Chicago Press. <https://doi.org/10.7208/chicago/9780226145006.001.0001>.
- Douglas, M. (1966). *Purity and danger: An analysis of concepts of pollution and taboo*. Routledge.
- Geertz, C. (1973). *The interpretation of cultures*. Basic Books.
- Hammersley, M., & Atkinson, P. (2019). *Ethnography: Principles in practice* (4th ed.). Routledge.
- Hidayat, M. (2025). Beyond the smoke: Historical and ethnographic notes on the Dayak Basap. *Endogami: Jurnal Ilmiah Kajian Antropologi*, 9(1), 71–93. <https://doi.org/10.14710/endogami.9.1.71-93>.
- Indrahastuti, T., Trisakti, Hidajad, A., Yanuartuti, S., & Martiara, R. (2025). *The Hudoq Kita': A contemporary reinterpretation of Dayak Kenyah cosmology in light of Islamic legal and theological perspectives*. *MILRev: Metro Islamic Law Review*, 5(1). <https://doi.org/10.32332/milrev.v5i1.10333>.
- Ingold, T. (2000). *The perception of the environment: Essays on livelihood, dwelling and skill*. Routledge.
- Kohn, E. (2013). *How forests think: Toward an anthropology beyond the human*. University of California Press.

- Lastaria, Ramdhani, M. T., & Purtina, A. (2022). Simbol budaya masyarakat Dayak Ngaju di Museum Balanga Palangka Raya. *Jurnal Hadratul Madaniyah*, 9(2). <https://doi.org/10.33084/jhm.v9i2.4486>
- Lévi-Strauss, C. (1963). *Structural anthropology*. Basic Books.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- Luardini, M. A. (2008). Makna dan nilai yang terkandung dalam teks legenda Dayak Ngaju.
- Maharani, U. D., & Prilosadoso, B. H. (2025). Representation of guardian spirits through Dayak motifs: A visual language analysis of Rumah Betang murals in West Kalimantan. *Gelar: Jurnal Seni Budaya*, 23(1). <https://doi.org/10.33153/blr.v23i1.6484>.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.
- Mulyoutami, E., Rismawan, R., & Joshi, L. (2009). Local knowledge and management of *Simpukng* (forest gardens) among the Dayak people in East Kalimantan, Indonesia. *Forest Ecology and Management*, 257(10), 2054–2061. <https://doi.org/10.1016/j.foreco.2009.01.042>.
- Murhaini, S., & Achmadi, A. (2021). The farming management of Dayak people's community based on local wisdom ecosystem in Kalimantan, Indonesia. *Heliyon*, 7(12), e08578. <https://doi.org/10.1016/j.heliyon.2021.e08578>.
- Nath, A. J., Reang, D., & Sileshi, G. W. (2022). The shifting cultivation juggernaut: An attribution problem. *Global Challenges*, 6(8), 2200051. <https://doi.org/10.1002/gch2.202200051>.
- Niko, N. (2025). Dayak Benawan indigenous futures: Tropical rainforest knowledge in Kalimantan, Indonesia. *eTropic: Electronic Journal of Studies in the Tropics*, 24(1), 218–239. <https://doi.org/10.25120/etropic.24.1.2025.4144>.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Praet, I. (2014). *Animism and the question of life*. Routledge.
- Qalyubi, I., & Ranti, A. (2020). *Struktur kosmologi "serba empat" dalam teks-teks kuno dan realitas sosial budaya masyarakat Dayak di aliran Sungai Barito Kalimantan Tengah* (Laporan Penelitian). LP2M IAIN Palangka Raya.
- Sahlins, M. (2014). *On the ontology of the person and culture*. HAU Books.
- Saptaningrum, U. K. E., & Sulaksono, R. R. (2025). *Nyalam Adat ba' Alam: Swidden cultivation and political-ecological dynamics among the Dayak Krio, West Kalimantan, Indonesia*. *Endogami: Jurnal Ilmiah Kajian Antropologi*, 9(1), 109–125. <https://doi.org/10.14710/endogami.9.1.109-125>.
- Saussure, F. de. (1959). *Course in General Linguistics*. McGraw-Hill.
- Schärer, H. (1963). *Ngaju religion: The conception of God among a South Borneo people*. Martinus Nijhoff.
- Sillitoe, P. (1998). The development of indigenous knowledge: A new applied anthropology. *Current Anthropology*, 39(2), 223–252. <https://doi.org/10.1086/204722>.
- Sinthumule, N. I. (2023). Traditional ecological knowledge and its role in biodiversity conservation: A systematic review. *Frontiers in Environmental Science*, 11, 1164900. <https://doi.org/10.3389/fenvs.2023.1164900>.
- Sperber, D. (1975). *Rethinking symbolism*. Cambridge University Press.
- Spradley, J. P. (2016). *Participant observation*. Waveland Press.
- Strathern, M. (1999). *Property, substance and effect: Anthropological essays on persons and things*. Athlone Press.
- Tsing, A. L. (2015). *The mushroom at the end of the world: On the possibility of life in capitalist ruins*. Princeton University Press.
- Vinco, M. S. M., Romualdi, K. B., & Hendra, L. (2025). Looking-glass self: The construction of Dayak identity among Dayak student artists at Santo Paulus Pontianak High School.

Jurnal Antropologi: Isu-Isu Sosial Budaya, 27(1), 88–100.
<https://doi.org/10.25077/jantro.v27.n1.p88-100.2025>.

Viveiros de Castro, E. (2015). *The relative native: Essays on indigenous conceptual worlds*. Chicago, IL: HAU Books.

Wiseman, B. (Ed.). (2009). *The Cambridge companion to Lévi-Strauss*. Cambridge University Press.