# Sampar Banyu Pager Ukir: Islamic Ecotheology, Ecological Memory, and Cultural Sustainability in Rural Java

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## Abstract

Environmental knowledge is increasingly vulnerable to disruption as modernization and social change weaken the transmission of local ecological knowledge across generations. In rural Java, ecological knowledge is often embedded in religious rituals, oral narratives, agricultural practices, and culturally meaningful landscapes. This study aims to examine how the Sampar Banyu Pager Ukir tradition in Pesalakan Village, Batang Regency, preserves ecological memory, articulates Islamic values and local ecological knowledge, and contributes to cultural sustainability. The study employed a qualitative ethnographic case-study approach. Data were collected through observation, semi-structured interviews, and documentation involving village elders, village officials, and community members involved in the tradition. The data were analyzed thematically by identifying recurring concepts related to water, irrigation, ancestral memory, agriculture, religion, communal solidarity, and environmental responsibility, which were then connected with the concepts of traditional ecological knowledge, ecological memory, cultural landscape, Islamic environmental ethics, and cultural sustainability. The findings show that Sampar Banyu Pager Ukir connects Pager Ukir Dam, Kali Susukan, Talang Wesi, Watu Lawang, and Wadas Mayung into a ritual landscape where water infrastructure, ancestral narratives, agricultural knowledge, religious gratitude, and communal relationships intersect. The tradition functions as a form of ecological memory by transmitting knowledge through ritual movement, storytelling, prayer, communal meals, and repeated participation. The study concludes that Sampar Banyu Pager Ukir represents an Islamic-Javanese form of ecological memory that can support cultural sustainability by reconnecting present generations with ecological knowledge, collective history, and religious responsibility toward the environment.

***Keywords:*** ecological memory, Sampar Banyu Pager Ukir, Islamic ecotheology, ritual landscape, cultural sustainability

## Introduction

Environmental problems are increasingly discussed not only in terms of ecological degradation but also in relation to the loss of cultural knowledge through which communities have historically understood and managed their environments. Modernization, demographic change, technological transformation, and the increasing separation between people and their immediate ecological surroundings may weaken the intergenerational transmission of local knowledge. In rural communities, however, ecological knowledge is not always preserved through formal institutions. It can be embedded in stories, rituals, customary practices, sacred places, agricultural activities, and collective celebrations. Such knowledge is particularly important because it connects environmental experience with social relations, moral obligations, and cultural identity.

The study of traditional ecological knowledge has demonstrated that local communities possess complex systems of knowledge concerning landscapes, water, plants, animals, agricultural cycles, and resource management. Berkes (2012) argues that traditional ecological knowledge should not merely be understood as a collection of traditional facts but as a dynamic process through which communities learn, adapt, and reproduce relationships between humans and their environments. Local knowledge therefore becomes meaningful when it is understood as part of a broader social and cultural system. Its continuity depends on processes of observation, practice, storytelling, social learning, and intergenerational transmission.

This perspective is particularly relevant in understanding rural Java, where environmental relations are frequently expressed through cultural and religious traditions. Javanese communities have developed various rituals related to agriculture, water, land, ancestors, and seasonal cycles. Among them, nyadran represents one of the most widely recognized traditions. Although its forms vary considerably from one locality to another, nyadran commonly incorporates communal prayer, remembrance of ancestors, thanksgiving, food sharing, and social gathering. Previous research has shown that nyadran can function as a meeting point between Javanese cultural traditions and Islamic values. In Sraturejo, Bojonegoro, for example, nyadran has been associated with gratitude to God, respect for ancestors, community solidarity, and preservation of local culture (Arinda, 2014). Similar research in Cepokokuning has demonstrated that nyadran incorporates Islamic values into local cultural practices through communal prayer, pilgrimage, salvation rituals, and collective activities (Abidin et al., 2022).

Recent studies have increasingly explored the environmental dimensions of nyadran. Research on Nyadran Sruwen identifies a relationship between the tradition and environmental ethics, while research in Mangunsari demonstrates that nyadran can function as an expression of ecological awareness and collective environmental action (Amidi et al., 2023; Fahmi & Brata, 2023). Such findings indicate that local rituals should not be examined exclusively through the categories of religion, culture, or social solidarity. They can also be understood as forms of environmental knowledge and ecological practice.

The relationship between religion and ecological responsibility has likewise received increasing scholarly attention. Islamic environmental ethics emphasizes human responsibility toward creation through concepts such as khalifah, amanah, balance, justice, and the prohibition of environmental destruction. Islamic ecological thought does not necessarily place

humans outside nature; rather, human responsibility is understood through a theological relationship with God and the created world (Foltz et al., 2003; Fikriyati, 2017). In Indonesia, Islamic ecological practices have also emerged through pesantren-based environmental activism, religious education, community conservation, and local traditions (Hasan et al., 2022; Mangunjaya et al., 2016).

The connection between culture and sustainability is equally significant. Soini and Dessein (2016) argue that culture may operate not merely as an object to be preserved but as a constitutive dimension of sustainability. Cultural practices can provide meanings, institutions, identities, and social mechanisms through which communities organize their relationships with their surroundings. Cultural sustainability therefore requires attention to the ways communities continuously reproduce and reinterpret cultural practices rather than simply preserving them as static heritage.

This perspective can also be connected to the concept of cultural landscape. A landscape is not merely a physical territory but may become meaningful through memories, practices, narratives, and social relationships. Heritage studies have consequently moved from viewing heritage exclusively as physical objects toward understanding landscapes as socially constructed and culturally meaningful spaces (Lourdes et al., 2020). Ritual landscapes are particularly significant because places become connected to collective memory through repeated ceremonial activities and narratives (Robb, 1998).

In Pesalakan Village, Bandar District, Batang Regency, Central Java, the Sampar Banyu Pager Ukir tradition provides an important case for examining these relationships. The tradition is practiced by residents of Dukuh Maron and surrounding communities around a series of water-related sites, particularly Pager Ukir Dam and Kali Susukan. According to local narratives, the water system has been connected with the history of ancestral labor, agricultural irrigation, and the survival of the community for generations. The annual ritual is performed through river tracing, prayer, communal meals, offerings, procession, and traditional performance. (Nurchamid, 2025).

The name "Sampar Banyu" refers locally to the period associated with Jumadilawal, while Pager Ukir refers to the dam that regulates water from Kali Kupang and supplies the Susukan irrigation system. The ritual is therefore inseparable from a specific ecological infrastructure. This characteristic differentiates the Pesalakan case from studies of nyadran that primarily emphasize ancestral remembrance, religious values, or social solidarity.

The existing literature provides important foundations for understanding nyadran, Islamic-local cultural interaction, and environmental ethics. Nevertheless, there remains limited attention to how a specific water infrastructure and its surrounding landscape become incorporated into an annual religious-cultural ritual and thereby function as a medium of ecological memory. Previous studies have generally treated nyadran as religious acculturation, local wisdom, environmental ethics, or social solidarity. The relationship between ritual, irrigation infrastructure, ancestral narratives, and ecological memory remains insufficiently explored.

This study therefore asks three questions. First, how does the Sampar Banyu Pager Ukir tradition preserve ecological memory in Pesalakan Village? Second, how are Islamic values, ancestral narratives, and local ecological knowledge articulated through the ritual? Third, how does the tradition contribute to cultural sustainability amid social and environmental change?

The study argues that Sampar Banyu Pager Ukir constitutes an Islamic-Javanese form of ecological memory. The tradition does not simply preserve an inherited ritual; it continually reproduces memories concerning water, agriculture, ancestral labor, communal responsibility, and gratitude to God. In this sense, cultural sustainability is achieved not through preserving a ritual in an unchanged form but through maintaining its capacity to connect present generations with ecological knowledge and ethical obligations inherited from the past..

## Methods

### Research Design

This research employed a qualitative ethnographic case-study approach. Ethnography was selected because the study focuses on meanings, narratives, practices, and social relationships surrounding the Sampar Banyu Pager Ukir tradition. Rather than measuring the ritual statistically, the study seeks to understand how community members interpret the tradition and how ecological meanings are reproduced through ritual practices.

The case-study design focuses specifically on the Sampar Banyu Pager Ukir tradition in Pesalakan Village, Bandar District, Batang Regency, Central Java. The case was selected because the ritual is closely associated with a water-management landscape consisting of a dam, irrigation channel, river, water channel infrastructure, and several ritual sites.

### Participants

The research site was Pesalakan Village, particularly Dukuh Maron and the ecological landscape surrounding Pager Ukir Dam and Kali Susukan. Administratively, Pesalakan is located in Bandar District, Batang Regency, Central Java. The village covers approximately 544 hectares and is characterized by hilly terrain. The elevation of the area is approximately 350 meters above sea level.

Participants were selected purposively based on their knowledge of the tradition. They included village elders, village government officials, and community members involved in the implementation of Sampar Banyu Pager Ukir. Key informants included A., locally known as M.S., a village elder, and R., the village head of Pesalakan. Their narratives were supplemented by observations of ritual locations and community activities.

Because oral histories frequently contain symbolic and genealogical elements that cannot always be independently verified, this study does not treat every oral account as an established historical fact. Instead, oral narratives are analyzed as forms of collective memory that reveal how the community understands its past and its relationship with the environment.

### Research Procedures

The research proceeded through several stages. First, the researchers identified the major ritual locations associated with Sampar Banyu Pager Ukir. Second, interviews were conducted with elders and village leaders concerning the history of the water system, ritual practices, ancestral narratives, and changes in the tradition. Third, observations were conducted on the physical characteristics of the ritual landscape and the sequence of ritual activities. Fourth, the collected data were organized according to recurring themes concerning water, ancestors, agriculture, religion, social solidarity, and environmental responsibility.

The research also paid attention to local terminology. Expressions in Javanese were recorded together with their Indonesian meanings to preserve the cultural context of oral

narratives. Local expressions were not treated merely as linguistic variations but as important evidence of how ecological knowledge and historical narratives are transmitted.

**Data Collection Technique(s)**

Data were collected through observation, semi-structured interviews, and documentation. Observation focused on the spatial arrangement of ritual sites and activities associated with the annual ceremony. Interviews focused on the origin of Pager Ukir, Kali Susukan, Talang Wesi, Watu Lawang, Wadas Mayung, the meaning of ritual activities, and community interpretations of the tradition.

Documentation included written notes and visual documentation of ritual locations and activities. Historical information concerning the village was also compared with available village information. The combination of interviews, observations, and documentation was used to strengthen data credibility through source triangulation.

**Data Analysis Technique**

Data analysis followed an interpretive thematic procedure. First, interview and observation data were organized according to the research questions. Second, recurring concepts were identified, including water, irrigation, ancestral memory, gratitude, prayer, communal meals, agricultural dependence, ritual space, and environmental responsibility. Third, these concepts were grouped into broader analytical themes.

The final analysis connected empirical findings with the concepts of traditional ecological knowledge, ecological memory, cultural landscape, Islamic environmental ethics, and cultural sustainability. The analysis therefore moved from description toward interpretation, while maintaining a distinction between empirical evidence and theoretical interpretation.

## Results

**The Ecological Setting of Sampar Banyu Pager Ukir**

The Sampar Banyu Pager Ukir tradition is inseparable from the water landscape of Pesalakan. Five locations are particularly significant: Pager Ukir Dam, Kali Susukan, Talang Wesi, Watu Lawang, and Wadas Mayung. These places are not simply physical locations. They form a connected landscape in which water, agricultural production, ancestral memory, and ritual practice intersect.

Pager Ukir is a dam located on Kali Kupang in the western part of Pesalakan. According to A., a village elder, the dam was constructed around 1955. He recalled:

"Nek bendungan niko damele tahun sket gangsal."

The statement means that the dam was built in 1955. Although this date is based on oral testimony rather than archival verification, the narrative demonstrates the importance of the dam in local historical consciousness. Pager Ukir is situated beneath a pine plantation. Access to the site traditionally involves a relatively difficult path through the plantation or along the Susukan riverbank. The physical environment surrounding the dam is characterized by relatively cool air, vegetation, and a river landscape.

Susukan’s river is another central component of the ecological landscape. It is an irrigation channel that carries water from Pager Ukir toward agricultural land around Dukuh

Maron. According to local narratives, the channel is associated with the figure of Mbah Wali Kembar. A. explained:

> "Kali niku sing damel Mbah Wali Kembar, tapi niku mboten kembar waline, tapi kembar prawakane."

The narrative explains that "kembar" does not refer to twin people but to a distinctive bodily characteristic associated with the figure in the story. The significance of this narrative is not limited to determining the historical identity of the builder. More importantly, it provides the community with a cultural explanation of the origin of the irrigation system.

R. similarly recalled that the construction of Kali Susukan was gradual because of the difficult terrain. He estimated that the channel could have originated more than three centuries ago, although he acknowledged that the exact date could not be established.

Talang Wesi represents another layer of the community's water infrastructure. It is a metal water channel constructed to allow water to pass between different sections of the landscape. According to A., earlier forms of the water channel were made from materials such as bamboo sheaths, leaves, and alang-alang before later being replaced by more durable materials.

The narrative surrounding Talang Wesi also describes the difficulty of transporting the construction material. A. explained that the metal was originally intended for another location but was eventually brought into the forested area around Kali Susukan. The material was moved using split coconut trunks along the river, and the process reportedly resulted in a fatal accident.

R. associated the concrete construction and material improvement of the channel with the period around 1965–1967. Again, the precise historical chronology requires archival confirmation. Nevertheless, the narrative demonstrates that infrastructure is remembered not only through dates but also through stories about labor, danger, sacrifice, and collective benefit.

Watu Lawang consists of two large stones positioned on opposite sides of the river, forming a natural passage resembling a doorway. The location marks an important transition into the Pager Ukir area. Local narratives associate the naming of Watu Lawang with several ancestral figures.

Wadas Mayung is another stone formation along the river. The location becomes part of the ritual route, where prayers are performed and offerings are traditionally placed. These places collectively form what may be described as a ritual landscape: physical locations whose meanings are produced through repeated social and religious practices.

**Table 1. Ecological and Ritual Sites of Sampar Banyu Pager Ukir**

| No | Site | Physical Function | Cultural-Ritual Significance |
|---|---|---|---|
| 1 | Pager Ukir | Dam and water regulation | Central ritual site and symbol of agricultural water |
| 2 | Kali Susukan | Irrigation channel | Memory of ancestral water management |
| 3 | Talang Wesi | Water channel across difficult terrain | Memory of technological adaptation and labor |
| 4 | Watu Lawang | Natural stone passage | Ritual transition and ancestral narrative |
| 5 | Wadas Mayung | Riverbank stone formation | Prayer and offering location |

The five sites demonstrate that the ritual landscape is simultaneously ecological, historical, social, and religious. The physical infrastructure provides the material foundation, while stories and rituals provide symbolic meanings.

## The Two-Day Structure of the Ritual

The Sampar Banyu Pager Ukir ceremony is traditionally conducted over two days during Jumadilawal. The first day is associated with Thursday Wage, while the second is associated with Friday Kliwon.

The first day involves river tracing. Residents and community figures begin from the lower part of the irrigation system around Maron Barat and walk upstream. Along the route, participants stop at particular locations to pray and place ritual foods or offerings. The route includes locations around Talang Wesi, Watu Lawang, Wadas Mayung, and eventually Pager Ukir Dam.

The practice of walking along the river is significant because it physically reconnects participants with the water infrastructure on which agricultural life depends. Rather than conducting the ritual at a single sacred building, the community moves through the landscape itself.

The second day begins at Pager Ukir Dam. Village officials and community members participate in communal activities involving food, prayer, and the symbolic release or procession of ducks. The animals are understood locally in relation to agricultural life. R. explained that ducks were useful in agricultural areas because they could consume pests in rice fields.

The community then processes along the river toward Watu Lawang while accompanied by traditional musical instruments. At Watu Lawang another communal meal and prayer are performed. The procession then continues toward the village, where a ronggeng performance is held. The ceremony concludes with another communal gathering or ngambeng at the house of the local hamlet leader.

## Ritual Practice as Collective Memory

The ritual sequence demonstrates that Sampar Banyu Pager Ukir is not simply a religious ceremony. It is a mechanism through which community members repeatedly encounter the physical traces of their collective history.

The river tracing brings participants into contact with the irrigation channel. The prayers performed at particular locations connect the physical environment with religious meaning. The communal meals reproduce social relationships among farmers and residents. The procession transforms the river into a shared public space. Traditional performance adds a cultural dimension to the celebration.

In this sense, the ritual produces what may be called ecological memory. Ecological memory refers here to the capacity of a community to retain and reproduce knowledge of its environmental relationships through social practices, narratives, and places. The concept is related to broader approaches to traditional ecological knowledge, in which knowledge is understood as embedded in practice and transmitted through social learning rather than stored exclusively in written documents (Berkes, 2012).

**Table 2. Ritual Activities and Their Ecological Meanings**

| No. | Ritual Activity | Social Meaning | Ecological Meaning |
|---|---|---|---|
| 1 | River tracing | Collective participation | Reconnecting people with the irrigation landscape |
| 2 | Prayer at ritual sites | Religious gratitude | Recognition of dependence on water and land |
| 3 | Communal meals | Solidarity and sharing | Recognition of agricultural interdependence |
| 4 | Duck procession | Collective celebration | Memory of agricultural relationships |
| 5 | Ronggeng performance | Cultural continuity | Transmission of local identity |

| | | | |
|---|---|---|---|
| 6 | Ngambeng | Social closure | Reaffirmation of communal relationships |

## Discussion

### Sampar Banyu Pager Ukir as Ecological Memory

The findings demonstrate that the strongest analytical contribution of Sampar Banyu Pager Ukir lies in its capacity to preserve ecological memory. The community remembers water infrastructure through stories, ritual routes, ancestral figures, food practices, and repeated annual ceremonies.

Ecological memory should not be reduced to a community's knowledge about plants, animals, or natural resources. It also includes memories of human interventions in ecological systems. In Pesalakan, the construction and maintenance of dams, channels, and irrigation infrastructure constitute part of the community's ecological history.

The narratives concerning Pager Ukir and Kali Susukan illustrate this process. Community members may not possess written historical documentation concerning the exact date of construction, the identity of builders, or the technical design of the original irrigation system. Yet they preserve fragments of this history through oral narratives.

This finding is consistent with Berkes's (2012) understanding of traditional ecological knowledge as a dynamic process of knowing and learning. Knowledge is not merely a fixed body of information. It is reproduced through practice and social relationships. In Pesalakan, the ritual becomes one of the mechanisms through which such knowledge remains socially visible.

The importance of this process becomes clearer when compared with contemporary heritage approaches. Heritage is increasingly understood as a social process rather than merely a collection of old buildings or physical objects. Cultural landscapes become meaningful because communities continually attach memories and values to them (Lourdes et al., 2020). Pager Ukir and Kali Susukan are therefore significant not simply because they are old infrastructures but because they continue to be remembered, visited, narrated, and ritualized.

### Water as a Religious and Cultural Medium

Water occupies a distinctive position in the Sampar Banyu Pager Ukir tradition. It is simultaneously a physical resource, an agricultural necessity, a cultural symbol, and a medium through which the community expresses gratitude.

The ritual does not present water exclusively as an economic resource. The community's annual return to the river demonstrates that water has social and moral significance. This is important in the context of Islamic environmental ethics, which understands human beings as having responsibilities toward God's creation.

Islamic environmental thought emphasizes concepts such as khalifah and amanah. The human being is entrusted with the management of the earth, and environmental resources cannot be treated as objects of unrestricted exploitation. Fikriyati (2017) argues that Islamic ecological ethics should move beyond a purely anthropocentric orientation and understand environmental responsibility as part of religious accountability.

The Pesalakan case does not necessarily represent a consciously formulated ecological theology. Community members do not necessarily use academic concepts such as "ecological

sustainability" or "environmental ethics" in describing their ritual. Nevertheless, their practice contains elements that can be interpreted through these frameworks.

This distinction is important. Researchers should not impose contemporary environmental concepts on local communities and then claim that communities consciously practice those theories. Rather, the appropriate approach is to identify how local practices generate meanings that can be placed into conversation with ecological and religious theory.

The community's expression of gratitude to God, prayers for safety and prosperity, respect for ancestral contributions, and continued attention to agricultural water collectively demonstrate an ethical relationship with the environment. Similar relationships have been identified in studies of Islamic ecological practices in Indonesia (Hasan et al., 2022; Rakhmat, 2022).

**From Sacred Space to Ritual Landscape**

The five locations identified in the study constitute a connected ritual landscape. Pager Ukir, Kali Susukan, Talang Wesi, Watu Lawang, and Wadas Mayung have different physical functions, but the annual ritual links them together into one cultural system.

The concept of ritual landscape is useful because it avoids separating "nature" from "culture." The river is not merely a natural object. The dam is not merely infrastructure. The stones are not merely geological formations. Through ritual practice, these spaces acquire cultural meanings.

Robb (1998) describes ritual landscapes as landscapes whose significance is produced through ritual practices and social interpretations. This perspective is particularly relevant to Pesalakan because the ritual route itself creates a relationship between separate ecological sites.

The river tracing is therefore more than physical movement. It is a form of cultural mapping. By moving from Maron Barat toward Pager Ukir, participants collectively reproduce knowledge of the water system. Younger participants can encounter locations that may otherwise be invisible in everyday life.

This is especially important under conditions of modernization. If everyday relationships with the river become weaker because agricultural practices change or younger generations spend less time working with irrigation systems, the ritual can become a periodic mechanism for reconnecting people with the landscape.

**Oral Narratives and Intergenerational Transmission**

The oral histories collected in this study demonstrate that ecological memory is transmitted through narrative. Stories concerning Mbah Wali Kembar, the construction of Kali Susukan, the development of Talang Wesi, and the origins of Watu Lawang provide explanations for the existence of particular places.

These narratives should not be judged solely according to whether every detail can be verified historically. Their cultural significance lies partly in their ability to provide communities with a language for explaining their relationship with place.

The story of Kali Susukan, for example, identifies ancestral figures with the creation of the irrigation channel. The narrative transforms an infrastructure project into an ancestral heritage. The community therefore remembers water management as part of its collective history rather than merely as a technical intervention.

This mechanism resembles what has been observed in other forms of oral ecological knowledge. Oral traditions can preserve information about landscapes, social norms, and environmental relationships while simultaneously strengthening collective identity.

Recent research on oral traditions in Muslim communities in Indonesia similarly demonstrates that oral narratives can transmit ecological values across generations, particularly when they are connected with Islamic moral teachings and community identity (Hi Adam et al., 2026).

The significance of oral transmission therefore lies not only in preserving historical information. It also maintains the social relationships through which communities recognize responsibility for places and resources.

**Communal Food and the Ethics of Sharing**

Food occupies an important position in the Sampar Banyu Pager Ukir ritual. Rice, ketupat, lepet, fruit, traditional snacks, and other foods are prepared and shared at several points in the ritual.

At first glance, these foods may appear to be merely ritual offerings. However, communal meals also constitute an important mechanism of social integration. Agriculture is inherently collective in the Pesalakan context because farmers depend on shared water infrastructure. The ritual food therefore represents more than individual consumption. It symbolizes the distribution of agricultural prosperity within the community.

The practice of eating together also reinforces what may be called the social ecology of water. Water connects farmers physically through the irrigation system; communal food connects them socially through sharing.

This finding is consistent with research on nyadran in Java, which has identified communal meals and collective activities as mechanisms for strengthening solidarity and reproducing local identity (Arinda, 2014; Abidin et al., 2022). The Pesalakan case extends this discussion by showing that social solidarity is closely connected to an ecological infrastructure.

**Ducks, Agriculture, and Local Ecological Knowledge**

The use of ducks in the second day of the ceremony provides another example of the connection between ritual and agricultural memory. R. explained that ducks could support agricultural activities by consuming pests in rice fields.

Regardless of whether the present-day ritual has a direct practical agricultural function, the narrative preserves a memory of the relationship between animals and farming. This illustrates the distinction between ritual symbolism and ecological knowledge: an element may be symbolic today while still carrying memories of earlier environmental practices.

Traditional ecological knowledge often develops through long-term interaction between communities and their surroundings. Practices are observed, adapted, and transmitted. Some practices may later become ceremonial even when their original utilitarian function changes.

The duck procession can therefore be interpreted as an example of how agricultural knowledge becomes embedded within cultural performance. The ecological meaning is not necessarily consciously articulated by every participant, but it remains accessible through the narrative associated with the ritual.

### Cultural Sustainability and the Problem of Static Preservation

The Sampar Banyu Pager Ukir tradition also raises an important question concerning cultural sustainability. Preserving a tradition does not necessarily mean maintaining every ritual element exactly as it existed in the past. Culture survives when communities continue to find meaning in inherited practices.

Soini and Dessein (2016) emphasize that culture can operate as a constitutive dimension of sustainability. This means that sustainability is not simply about maintaining ecological resources; it also involves maintaining cultural capacities that allow communities to interpret and manage change.

From this perspective, the sustainability of Sampar Banyu Pager Ukir depends on whether younger generations continue to understand why the ritual matters. If the ceremony is reduced to entertainment, its ecological memory may weaken. Conversely, if the ritual is interpreted as a living relationship between water, agriculture, community, ancestors, and God, it can remain meaningful under changing conditions.

This point is consistent with recent studies of nyadran that emphasize adaptation rather than static preservation. Research in Ngayung, East Java, for example, demonstrates that nyadran can be creatively reinterpreted under changing religious and social conditions while maintaining its function as a mechanism of social harmony (Syarifah et al., 2025).

The challenge for Pesalakan is therefore not simply whether the community continues to conduct nyadran. The more important question is whether the ecological knowledge and ethical meanings associated with the ritual continue to be transmitted.

### Islamic Values Without Romanticizing Tradition

The relationship between Islam and local tradition needs to be examined carefully. The presence of prayer, gratitude, communal meals, and remembrance of ancestors does not automatically mean that every component of the ritual is derived from Islamic teachings. Nor should every traditional practice be automatically categorized as Islamic.

The more productive analytical approach is to examine how Muslim communities negotiate cultural practices within their religious worldview. Previous studies have shown that Javanese nyadran can become a site of interaction between local customs and Islamic teachings (Abidin et al., 2022; Azzahra et al., 2025).

In Pesalakan, the ritual's explicit orientation toward prayer and gratitude to God provides a religious framework within which ancestral remembrance and local customs are practiced. This does not eliminate the cultural character of the ritual. Instead, it demonstrates the dynamic process through which local Muslim communities interpret inherited traditions.

This approach avoids two opposite tendencies. The first is to dismiss local traditions as merely pre-Islamic survivals. The second is to romanticize every local tradition as inherently Islamic. The empirical evidence instead suggests a process of negotiation, reinterpretation, and continuity.

### Social Solidarity as an Ecological Institution

The tradition also demonstrates that ecological management is not merely a technical problem. Irrigation systems require cooperation, communication, and shared norms. The ritual helps reproduce these social relationships.

Community members participate in preparation, food provision, river tracing, prayer, procession, and entertainment. These activities require coordination across households and social groups. Through repeated participation, the community reinforces familiarity and trust.

This social dimension is particularly relevant to environmental governance. Research on local wisdom has repeatedly demonstrated that collective norms and social institutions can support natural resource management (Berkes, 2012; Abas et al., 2022).

The Pesalakan case suggests that ritual can function as an informal ecological institution. It does not regulate water distribution through formal legal rules, but it reminds the community that water is a shared resource with a collective history.

The ritual therefore creates an ethical environment in which the water system is remembered as a communal inheritance. This memory can potentially support contemporary efforts to protect water resources, provided that the cultural meaning of the tradition remains connected to practical environmental concerns.

**Islamic Ecotheology and Environmental Ethics in Sampar Banyu Pager Ukir**

The Sampar Banyu Pager Ukir tradition can be interpreted through Islamic ecotheology, which understands the relationship between human beings and the natural world in light of their relationship with God. From this perspective, water is not merely a physical resource or an instrument of agricultural production. It is part of creation that sustains life and therefore calls for gratitude, responsibility, restraint, and care. The tradition's repeated attention to Pager Ukir Dam, Kali Susukan, and the connected ritual sites makes the local water landscape central to the community's religious and cultural memory. This interpretation is consistent with Islamic environmental thought, which emphasizes the moral dimensions of human interaction with the created world (Foltz et al., 2003; Fikriyati, 2017; Rakhmat, 2022).

One important ecotheological value is khalifah, or the responsibility entrusted to human beings to act as caretakers rather than absolute owners of the earth. In the Pesalakan context, the water system is remembered through accounts of ancestral labor, irrigation, and the community's dependence on water. Such narratives can be read as reminders that the continuity of village life depends on how people collectively manage and care for shared ecological resources. The idea of khalifah does not by itself prove that the ritual produces measurable conservation outcomes; rather, it offers an ethical framework for interpreting the responsibilities expressed through community memory and participation (Liew, 2016; Rakhmat, 2022).

A second value is amanah, the notion of a trust that must be fulfilled responsibly. The river, dam, and irrigation channels sustain agricultural and social life, yet their benefits depend on maintenance, cooperation, and attention to the needs of others. By recalling the origins and significance of the water infrastructure, Sampar Banyu Pager Ukir may reinforce the idea that water is a shared trust rather than a resource to be used without limits. This ethical implication becomes most consequential when remembrance is linked to practical conduct, such as protecting water quality, preventing the careless disposal of waste, maintaining irrigation channels, and ensuring fair consideration of shared water needs. These actions should be understood as implications for community practice, not as outcomes directly measured by the present study.

The tradition also expresses gratitude (syukur) and a recognition of human dependence on conditions that no individual can sustain alone. Prayer and communal gathering place the

community's relationship with water within a religious frame, while the collective activities surrounding the ritual make interdependence socially visible. Gratitude in this sense need not be reduced to a verbal expression or a ceremonial moment. From an ecotheological perspective, it can become an ethic of care: recognizing the value of water should encourage conduct that avoids waste and damage, protects the ecological conditions on which livelihoods depend, and respects the needs of future generations. The environmental meaning of gratitude is therefore strengthened when symbolic practices are accompanied by everyday stewardship.

A further dimension is mizan, or balance, understood as an ethical orientation toward avoiding excess and maintaining just relationships. Although the available field data do not establish a formal local doctrine of mizan within the ritual, the concept provides a useful Islamic lens for reflecting on the balance between human use of water and the responsibility to sustain the systems that support community life. The tradition's emphasis on shared history and collective responsibility can also be related to social solidarity as an ecological institution: environmental care is more likely to be sustained when it is supported by trust, cooperation, and shared norms (Berkes, 2012; Abas et al., 2022).

An ecotheological reading must nevertheless avoid romanticizing tradition or assuming that every ritual practice automatically protects nature. The evidence presented here supports the conclusion that Sampar Banyu Pager Ukir carries memories and meanings associated with water, agriculture, gratitude, and communal obligation; it does not independently demonstrate measurable improvements in river health or irrigation management. The significance of the tradition lies in its potential to connect religious values with ecological responsibility. Community-led discussions, intergenerational learning, and practical activities related to water and landscape care could help translate this ethical potential into contemporary environmental action, while allowing local participants to determine which interpretations remain faithful to their lived experience.

**Limitations of the Study**

This study has several limitations. First, the historical reconstruction of Pager Ukir and Kali Susukan relies substantially on oral narratives. Several dates and genealogical accounts could not be independently verified through archival documents. Consequently, the findings should not be interpreted as a definitive reconstruction of the technical history of the irrigation system.

Second, the study focuses on one village and one ritual tradition. The findings cannot automatically be generalized to all forms of nyadran in Java. Nyadran is highly diverse, and its meanings differ according to ecological, historical, religious, and social contexts.

Third, the study primarily captures the perspectives of elders and community leaders. Younger residents, women, farmers with different levels of participation, and residents who may no longer participate in the ritual require further investigation.

Fourth, this study identifies ecological meanings embedded in ritual practice but does not quantitatively measure the environmental effects of the tradition. Future research could examine whether participation in the ritual is associated with concrete practices of water conservation, river maintenance, agricultural sustainability, or waste management.

These limitations indicate that future research should combine ethnographic research with historical archives, participatory mapping, environmental assessment, and intergenerational studies.

## Conclusion

The Sampar Banyu Pager Ukir tradition in Pesalakan Village demonstrates that a local religious-cultural ritual can function as a significant repository of ecological memory. The tradition connects Pager Ukir Dam, Kali Susukan, Talang Wesi, Watu Lawang, and Wadas Mayung into a ritual landscape in which water infrastructure, ancestral narratives, agriculture, religious gratitude, and communal solidarity intersect.

The first research question concerning ecological memory can therefore be answered by showing that the tradition preserves knowledge about the water landscape through repeated movement, storytelling, ritual practice, and communal participation. The second question concerning Islamic values and local ecological knowledge is answered through the interaction between prayer, gratitude to God, ancestral remembrance, agricultural knowledge, and communal responsibility. The third question concerning cultural sustainability is addressed through the ability of the ritual to continuously reconnect present generations with inherited ecological and cultural meanings.

The principal contribution of this study is the conceptualization of Sampar Banyu Pager Ukir as an Islamic-Javanese form of ecological memory. Previous studies have identified nyadran as a medium of Islamic acculturation, social solidarity, environmental ethics, and cultural preservation. This study extends that discussion by demonstrating how a water-management landscape itself can become the central medium through which ecological memory is reproduced.

The tradition should therefore not be understood merely as an inherited ceremony or cultural performance. Its significance lies in its capacity to remind the community that water, agriculture, landscape, ancestors, and collective life are interconnected. Cultural sustainability in this context does not mean freezing the ritual in its historical form. It means ensuring that the ritual continues to communicate meaningful relationships between human beings, their environment, their collective past, and their religious responsibilities.

Practically, the findings suggest that local governments, cultural institutions, schools, Islamic educational institutions, and community organizations can use Sampar Banyu Pager Ukir as a source of ecological education and cultural heritage preservation. Documentation of oral histories, participatory mapping of ritual landscapes, and intergenerational educational activities could strengthen the continuity of the tradition while simultaneously supporting awareness of water conservation.

Ultimately, the significance of Sampar Banyu Pager Ukir lies in its ability to transform memory into an ethical relationship with place. The community does not merely remember the people who built and maintained the water system; through ritual, it also remembers its dependence on water and its responsibility to maintain the social and ecological relationships that make communal life possible.

## Conflict of interests

The authors declare that they have no conflict of interest.

## References

Abas, A., Aziz, A., & Awang, A. (2022). A systematic review on the local wisdom of indigenous people in nature conservation. Sustainability, 14(6), 3415. https://doi.org/10.3390/su14063415

Abidin, M. Y., Aini, R., & Haryanto, A. D. (2022). Nyadran tradition in Cepokokuning Village: Educational construction of local wisdom in Islamic values. Jurnal Pendidikan Agama Islam Al-Thariqah, 7(2). https://doi.org/10.25299/al-thariqah.2022.vol7(2).10636

Amidi, A., Amalia, A. V., Prasetyo, B., Daeni, F., Rahmatillah, I. Z., & Fadholi, M. A. (2023). Study of local wisdom Nyadran Sruwen Hamlet as ethnoscience and environmental ethics. Unnes Science Education Journal, 12(1). https://doi.org/10.15294/usej.v12i1.58226

Arinda, R. (2014). Sedekah bumi (Nyadran) sebagai konvensi tradisi Jawa dan Islam masyarakat Sraturejo Bojonegoro. El-Harakah: Jurnal Budaya Islam, 16(1). https://doi.org/10.18860/el.v16i1.2771

Azzahra, F., Mulyani, M., & Thaksin, A. B. (2025). Acculturation of Islamic teachings and local customs: A sociological study on the Nyadran tradition in Java. SMART: Journal of Sharia, Tradition, and Modernity. https://doi.org/10.24042/f16gp058

Berkes, F. (2012). Sacred ecology (3rd ed.). Routledge.

Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. Ecological Applications, 10(5), 1251–1262. https://doi.org/10.1890/1051-0761(2000)010[1251:ROTEKA]2.0.CO;2

Foltz, R. C., Denny, F. M., & Baharuddin, A. (Eds.). (2003). Islam and ecology: A bestowed trust. Harvard University Press.

Fahmi, M. F., & Brata, N. T. (2023). Etika ekologi dan kearifan lingkungan dalam fenomena Nyadran di Dukuh Mangunsari. Solidarity: Journal of Education, Society and Culture, 12(2). https://doi.org/10.15294/solidarity.v12i2.76848

Fatmawati, I., & Hanik, U. (2024). Penerapan modul ajar matematika berbasis etnomatematika kearifan lokal tradisi Nyadran Sidoarjo. Jurnal Basicedu, 8(1), 806–814. https://doi.org/10.31004/basicedu.v8i1.7189

Fikriyati, U. (2017). Orientasi konservasi lingkungan dalam ekologi Islam. Jurnal Bimas Islam, 10(2). https://doi.org/10.37302/jbi.v10i2.19

Hasan, N., Mardhatillah, M., Abadi, M. M., & Hidayat, A. R. (2022). Environmental activism in Indonesian pesantren: The role of Lora in mainstreaming Islamic eco-theology in Tapal Kuda, East Java. Teosofi: Jurnal Tasawuf dan Pemikiran Islam, 12(2), 280–306. https://doi.org/10.15642/teosofi.2022.12.2.280-306

Hi Adam, S., Ali, S. U., Kahar, S. K., Dafrin, F., & Suhardi, F. (2026). Oral literature, traditional ecological knowledge, and Islamic environmental ethics in Ternate: Intergenerational transmission and cultural resilience in small-island Indonesia. Wawasan: Jurnal Ilmiah Agama dan Sosial Budaya, 11(1), 49–64. https://doi.org/10.15575/jw.v11i1.51218

Liew, H. H. (2016). The caliphate of Adam: Theological politics of the Qur'anic term khalīfa. Arabica, 63(1–2). https://doi.org/10.1163/15700585-12341381

Lourdes, M. D., et al. (2020). Guidelines from the heritage field for the integration of landscape and heritage planning: A systematic literature review. Landscape and Urban Planning. https://doi.org/10.1016/J.LANDURBPLAN.2020.103931

Mangunjaya, F. M., Alikodra, H. S., Amin, A. A., & Abbas, A. S. (2016). Kesadaran lingkungan di kalangan santri terhadap pembangunan berkelanjutan. Media Konservasi, 18(3). https://doi.org/10.29244/medkon.18.3.%p

Nurchamid, S., dkk (2025). Jejak lintas kampung: Mengungkap kisah, tradisi, dan budaya desa di Batang. Penerbit NEM. https://www.penerbitnem.com/2025/11/jejak-lintas-kampung-mengungkap-kisah.html

Nurdin, A., & Ahmad, A. (2025). Landasan ekoteologis dan tafsir aplikatif Masjid Bayt Al-Qur'an PSQ dalam konservasi lingkungan. Jurnal Bimas Islam, 18(1). https://doi.org/10.37302/jbi.v18i1.1522

Putra, H. T., Deta, U. A., & Admoko, S. (2026). The Nyadran tradition based on ethnoscience as the local wisdom of the Balongdowo community of Sidoarjo. Journal of Ethnophysics, 1(1). https://doi.org/10.26740/joe.v1i1.46730

Rakhmat, A. (2022). Islamic ecotheology: Understanding the concept of khalifah and the ethical responsibility of the environment. Academic Journal of Islamic Principles and Philosophy, 3(1), 1–24. https://doi.org/10.22515/ajipp.v3i1.5104

Ramona, E., & Muhsin, I. (2024). The Nyadran tradition and the changing roles of Javanese migrant women. Khazanah: Jurnal Studi Islam dan Humaniora, 22(1), 26–42. https://doi.org/10.18592/khazanah.v22i1.10935

Robb, J. G. (1998). The 'ritual landscape' concept in archaeology: A heritage construction. Landscape Research, 23(2), 159–174. https://doi.org/10.1080/01426399808706533

Soini, K., & Dessein, J. (2016). Culture-sustainability relation: Towards a conceptual framework. Sustainability, 8(2), 167. https://doi.org/10.3390/su8020167

Solehudin, & Chodijah, S. (2026). Environmental ethics in Islam: A contemporary Sufi reading of Qur'anic texts. An-Nida', 50(1). https://doi.org/10.24014/an-nida.v50i1.39191

Syarifah, U., Imamuddin, M., Ningsih, A. A., Fahimah, S., & Gadallah, A. (2025). Nyadran tradition and the dynamics of religious moderation in urban Muslim communities: An ethnographic study in Ngayung, East Java. Akademika: Jurnal Pemikiran Islam, 30(2). https://doi.org/10.32332/akademika.v30i2.11196

Zanirato, S. H. (2020). Cultural landscape and the spirit of the place as heritage: In search of a social pact of land use planning. Revista CPC, 15(29), 8–35. https://doi.org/10.11606/issn.1980-4466.v15i29p8-35

UNESCO. (2003). Convention for the Safeguarding of the Intangible Cultural Heritage. https://www.unesco.org/en/legal-affairs/convention-safeguarding-intangible-cultural-heritage

A. (2024, May 25). Sejarah dan pelaksanaan Nyadran Sampar Banyu Pager Ukir [Interview with a village elder].

R.. (2024, March 19). Sejarah Nyadran Sampar Banyu Pager Ukir [Interview with the Head of Pesalakan Village].

Website Desa Pesalakan. (2024, July 29). Profil Desa Pesalakan. http://pesalakan.desa.id/