

Reframing *Sirah Keteng* as a Learning Resource: Cultural Identity, Sacred Ecology, and Education Policy

Hadi Cahyono¹, Ardhana Januar Mahardhani², Catarina Wahyu Dyah Purbaningrum³

¹ Universitas Muhammadiyah Ponorogo, Indonesia, hadicahyono@umpo.ac.id

² Universitas Muhammadiyah Ponorogo, Indonesia, ardhana@umpo.ac.id

³ Universitas Gunung Kidul, Indonesia, catarina@ugk.ac.id

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ABSTRACT

Local cultural heritage sites are increasingly recognized as markers of identity, yet their integration into formal education as contextual learning resources remains limited. This study examines *Sirah Keteng* in Ponorogo, East Java, as a local-wisdom-based learning resource by exploring its roles in constructing cultural identity, articulating sacred ecology, and informing regional education policy. This qualitative study combined local historiographic inquiry and ethnographic methods. Fieldwork was conducted over six months and involved 18 participants, including traditional leaders, village officials, site caretakers, cultural practitioners, teachers, local youth, and environmental managers. Participants were selected through purposive sampling using a maximum variation strategy. Data were collected through historical source analysis, in-depth interviews, participant observation, and documentation of artifacts, rituals, and cultural practices. The data were analyzed using thematic and narrative analysis, with trustworthiness strengthened through source triangulation, method triangulation, member checking, and an audit trail. The findings show that *Sirah Keteng* functions as a living cultural-ecological system. Community narratives, ritual practices, sacred water traditions, historical artifacts, and symbolic elements such as Sendang Beji, the head statue, and Watu Pawukon contribute to the reproduction of local identity and the transmission of historical, spiritual, and ecological knowledge across generations. However, its educational use remains informal and underdeveloped due to limited curriculum integration, regulatory support, and institutional collaboration. This study highlights the importance of reframing cultural heritage sites as place-based learning resources. Integrating *Sirah Keteng* into local education policy may strengthen cultural identity, environmental awareness, and character education through contextual and experiential learning.

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Corresponding Author:

Hadi Cahyono

Universitas Muhammadiyah Ponorogo, Indonesia; hadicahyono@umpo.ac.id

1. INTRODUCTION

Indonesia boasts a wealth of local cultural sites imbued with historical value, symbolism, and community identity. These sites serve not only as relics of the past, but also as living spaces that continue to shape and build the community's collective awareness of their origins, noble values, and cultural identity (Supriadi et al., 2025). They contain symbols that reflect worldviews, beliefs, and human relationships with nature and the transcendent. These values are embodied through folk narratives, traditional rites, and social practices passed down through generations, making cultural sites crucial pillars of local cultural continuity and sources of contextual learning across generations amidst ever-evolving social dynamics (Hakim et al., 2025; Soraya et al., 2025).

The *Beji Sirah Keteng* cultural site is a local cultural heritage site that holds historical and cultural values, located in Bedingin Village, Sambit District, Ponorogo Regency, East Java Province. Etymologically, the name "*Beji Sirah Keteng*" comes from three Javanese words: "*Beji*" meaning pond, "*Sirah*" meaning head, and "*Keteng*" referring to a gathering place. This combination of meanings represents *Beji Sirah Keteng*'s function as a socio-cultural space as well as a traditional learning space for the community that has existed since ancient times until now. This site is not only a symbol of local community identity, but also reflects the connection between physical space, local cosmology, and cultural practices passed down from generation to generation. Henceforth, *Beji Sirah Keteng* will only be written as *Sirah Keteng*.

Although local cultural heritage is increasingly acknowledged in cultural discourse, its integration into formal education policy as a contextual learning resource remains limited. This disconnect highlights the need to reinterpret living heritage sites pedagogically. The *Sirah Keteng* site in Ponorogo Regency, East Java, exemplifies a living cultural heritage integrating historical narratives, cultural symbolism, and sacred ecological practices within community life. This study investigates how *Sirah Keteng* functions as a local wisdom-based learning resource by examining how cultural identity is constructed, how sacred ecology is articulated, and how these dimensions can inform regional education policy.

The main attraction of this cultural site lies in the presence of historical artifacts, such as inscriptions, statues, and everyday utensils from the past, which reinforce the inherent historical significance. *Sirah Keteng* is also known as a sacred place and often serves as a center for rituals and traditional ceremonies. This reflects the continuity of the spiritual values of the Ponorogo community and demonstrates that the site serves as a practical space for the transmission of cultural values and knowledge, not merely as a material relic.

However, the educational function and significance of the elements of the *Sirah Keteng* site have not been systematically studied in academic research, despite its existence as a vital cultural asset for Ponorogo's identity. Existing studies tend to position cultural sites as archaeological or folkloric objects, while their potential as sources of learning based on local wisdom and character education remains relatively neglected (Persson & Synnestvedt, 2022; Prabowo & Supardi, 2022; Rahmawati et al., 2025). Yet, within the context of national education policies that encourage the strengthening of local content and contextual learning, cultural sites such as *Sirah Keteng* hold significant relevance (Aefsky, 2021).

The literature gap is also evident in the lack of studies integrating oral history, socio-ritual functions, and the symbolic and ecological dimensions of cultural sites within the framework of education and regional education policies. Elements such as the *Beji* pond and head statues are still utilized by the community, both in ritual practices and socio-economic activities, indicating that this site is a living heritage. However, there has been no comprehensive research that positions *Sirah Keteng* as a learning resource with the potential to be integrated into local wisdom-based education policies at the regional level (Fitrah, 2022; Gusyanti, 2023; Kusumswati, 2022; Mustika & Setyarini, 2022a, 2022b).

In this context, this research utilizes local historiography and an ethnographic approach to explore *Sirah Keteng* as a learning resource based on local wisdom. The methods applied include narrative historical research by collecting oral data from community leaders, symbolic analysis of head statues (*sirah*), *watu pawukon*, and a study of the role of the *Beji* pond as a spiritual and ecological symbol. The

objectives of this research are: (1) to identify the history of the formation and community narratives related to *Sirah Keteng*, including the stories of *Prabu Baka*, *Ki Ageng Prono*, as well as the puppet and *babad* versions of Ponorogo; (2) to describe the ritual, social, and ecological functions of the site elements as forms of local knowledge; and (3) to analyze the impact of these findings on the development of educational policies based on local wisdom in Ponorogo Regency.

2. METHODS

This study employs a qualitative approach combining local historiographic research and ethnographic methods. Fieldwork was conducted over six months involving 18 participants, including traditional leaders, village officials, cultural practitioners, and local youth selected through purposive sampling. The informants were selected through purposive sampling using a maximum variation strategy. This approach was employed to include participants with diverse roles and experiences related to the *Sirah Keteng* site, including traditional leaders, site caretakers, village officials, cultural practitioners, teachers, local youth, environmental managers, and community elders. Limited snowball sampling was also used to identify additional informants with specific knowledge of oral histories, ritual practices, and sacred ecological meanings associated with the site. Data were collected through historical source analysis, in-depth interviews, participatory observation at the *Sirah Keteng* site, and documentation of artifacts and cultural practices. Furthermore, an ethnographic approach is used to explore social practices, rituals, and contemporary meanings of the community towards the *Sirah Keteng* site (Creswell & Creswell, 2018).



Figure 1. Ethnographic Approach

Ethnographic data collection techniques were conducted through in-depth interviews with community leaders, including the Bedingin village head, the site caretaker, and village elders who have knowledge of the history, traditions, and social and spiritual functions of *Sirah Keteng*. In addition, interviews were also conducted with youth representatives and local environmental managers to obtain cross-generational perspectives regarding the site's educational potential. To strengthen the interview data, this study was supplemented with documentation studies in the form of photographs of artifacts, site layout, and other supporting documents relevant to the history and cultural practices of *Sirah Keteng*. The researcher acted as the primary instrument and assumed the role of a participant observer, engaging directly with community members through in-depth interviews and participatory observation. The researcher's positionality was situated within an insider-outsider perspective, allowing contextual understanding while maintaining analytical distance. Researchers also conducted participatory observations in the site area, including during the implementation of ritual activities and community social activities, and recorded the entire observation process in systematic field notes.



Figure 2. Steps of Data Analysis

Based on Figure 1, data were analyzed using thematic and narrative analysis to identify meaning structures, socio-ecological function, and educational relevance. The data were then grouped into main themes, including: (1) local cultural identity, (2) symbolism and sacred ecology, (3) the socio-ritual function of the site, and (4) the potential and implications of *Sirah Keteng* as a source of learning based on local wisdom and a reference for educational policy in Ponorogo. Data validity was maintained through triangulation of sources and methods, as well as member checks with informants to confirm the accuracy of the researcher's interpretation. In addition, an audit trail was conducted to document the entire research process in a transparent and academically accountable manner. The research conclusions were drawn up based on the synthesis of the results of historiographic and ethnographic analysis, which describes *Sirah Keteng* not only as a symbol of cultural identity and sacred ecology of the Ponorogo community, but also as a contextual learning source that has strategic relevance for the development of local wisdom-based educational policies at the regional level (Pahleviannur et al., 2022).

3. FINDINGS AND DISCUSSION

3.1 Findings

3.1.1 *Sirah Keteng* and the Construction of Local Cultural Identity

Field findings identify the existence of an ecological system that is perceived as sacred by the local community, reflected not only in ritual practices but also in patterns of water resource utilization and conservation. Based on participatory observations conducted throughout the research period, Sendang Beji is consistently used in padusan rituals performed prior to significant cultural events, such as the month of Suro and other village ceremonies. This activity involves cross-generational participation, including traditional leaders as well as members of the general community.

Table 1. Summary of Interview Findings

Informant Code	Role	Excerpt of Interview	Key Theme
Informant 1	Traditional leader	"Sejak dulu, tempat ini dianggap penting, bukan hanya sejarah, tapi juga bagian dari jati diri masyarakat sini."	Cultural identity
Informant 2	Village elder	"Cerita tentang Sirah Keteng itu selalu diceritakan ke anak-anak, supaya mereka tahu asal-usulnya."	Oral tradition
Informant 3	Cultural practitioner	"Kalau tidak ada cerita dan ritual, tempat ini mungkin sudah dianggap biasa saja."	Cultural transmission
Informant 4	Village official	"Kami sebenarnya ingin mengembangkan ini jadi tempat edukasi, tapi belum ada aturan yang jelas."	Policy limitation

Informant 5	Youth representative	<i>"Kami sering ikut kegiatan di sini, tapi belum pernah dijadikan pembelajaran resmi dari sekolah."</i>	Educational gap
Informant 6	Site caretaker	<i>"Orang datang ke sini bukan hanya lihat-lihat, tapi juga punya tujuan spiritual."</i>	Sacred space
Informant 7	Site caretaker	<i>"Air di sini bukan hanya untuk mandi, tapi untuk membersihkan diri sebelum acara penting."</i>	Sacred ecology
Informant 8	Environmental manager	<i>"Kami menjaga sumber air ini karena sudah dianggap warisan dari leluhur."</i>	Conservation practice
Informant 9	Local resident	<i>"Kalau tidak dijaga, nanti bisa hilang seperti tempat lain."</i>	Environmental awareness
Informant 10	Local resident	<i>"Dulu banyak orang luar datang untuk ritual, sekarang mulai berkurang."</i>	Cultural change
Informant 11	Local resident	<i>"Kalau ada benda dimasukkan di Dong Lesung, nanti bisa muncul di sini."</i>	Local belief system
Informant 12	Youth representative	<i>"Kami tahu ini penting, tapi kurang penjelasan secara ilmiah di sekolah."</i>	Knowledge gap
Informant 13	Teacher	<i>"Sebenarnya ini sangat bagus untuk pembelajaran kontekstual, tapi belum masuk kurikulum."</i>	Curriculum limitation
Informant 14	Teacher	<i>"Sekolah jarang sekali membawa siswa ke sini, padahal potensinya besar."</i>	Learning utilization gap
Informant 15	Cultural observer	<i>"Nilai budaya di sini kuat, tapi belum terdokumentasi dengan baik."</i>	Documentation issue
Informant 16	Village official	<i>"Kalau ada dukungan pemerintah, ini bisa jadi pusat edukasi budaya."</i>	Policy opportunity
Informant 17	Community elder	<i>"Ritual di sini bukan hanya tradisi, tapi cara menjaga keseimbangan hidup."</i>	Philosophical value
Informant 18	Local youth	<i>"Kami ingin tempat ini tetap ada, tapi juga lebih dikenal oleh generasi muda."</i>	Sustainability concern

Field notes further indicate that, prior to the ritual, the community collectively cleans the spring area and prepares ritual offerings (sesaji) as part of a broader spiritual practice. This process demonstrates a close interconnection between ecological and religious dimensions in the management of water resources:

"The water here is not only for bathing, but for purifying oneself before important events." (Informant 7, site caretaker)

Additional interview findings reveal that water from Sendang Beji is symbolically understood as a medium for both physical and spiritual purification. Moreover, there exists a shared belief regarding the interconnection between water sources in the area, particularly between Dong Lesung and Sirah Keteng. This belief is not merely conveyed as oral tradition but is also grounded in perceived empirical experiences of the community:

"If an object is placed in Dong Lesung, it can later appear here." (Informant 11, local resident)

From an observational perspective, although such phenomena cannot be scientifically verified, these narratives function as cultural mechanisms that reinforce collective awareness of the interconnectedness of water systems and the importance of their preservation.

Furthermore, documentation results, including visual records and preliminary spatial mapping of the site, indicate the presence of possible underground pathways, such as subsurface channels or rock fissures, connecting multiple water sources within the area. These findings are based on direct observations of land contours, water flow patterns, and geological structures surrounding Sendang Beji and Dong Lesung. Supporting evidence from archival photographs and local records maintained by site custodians also shows consistency in these structural features over time, strengthening the assumption of a traditional hydrological system that has been utilized and maintained across generations.



Figure 3. Sirah Keteng Statue

Source: Researcher Documentation

The head statue (*sirah*) at the Sirah Keteng site is believed to represent the figure of Kala or Kalamakara, a mythological entity in ancient Javanese cosmology that functions as a guardian of sacred gateways. The presence of this statue is not merely ornamental; rather, it serves as a protective symbol against negative energies and embodies the forces of time and death that must be respected. This interpretation is consistently reflected in community narratives, as expressed by one informant:

"The head statue is believed to be a guardian, so that this place remains safe from bad things."
(Informant 3, cultural practitioner)

Its changing placement over time further indicates how the local community has actively sought to align this symbolic element with specific spiritual axes or sacred directions. This is supported by interview data with local custodians:

"Moving the statue is not done haphazardly, it must follow a certain direction according to the instructions of the ancestors." (Informant 6, site caretaker)

From an analytical perspective, these practices demonstrate that the statue is embedded within a living system of belief and spatial cosmology, rather than functioning as a static artifact. The community's actions reflect an ongoing process of meaning-making and spatial negotiation rooted in traditional knowledge. This phenomenon reinforces the understanding that the site has long been an integral part of the community's religious order since the past, where material symbols, spiritual beliefs, and cultural practices are continuously interconnected and reproduced across generations.



Figure 4. Pakuwon Statue

Source: Researcher Documentation

Another significant relic found at the site is Watu Pawukon, a stone believed to contain elements of the traditional Javanese calendrical system. This artifact functioned as a tool for determining auspicious days and appropriate timing for conducting ritual and religious activities. Its symbolic meaning is particularly strong, as it indicates that Sirah Keteng was not merely an ordinary place, but also served as a center for sacred time calculation within the local community. This interpretation is supported by interview findings, which highlight the continued recognition of its function among community members:

"Watu Pawukon was previously used to determine auspicious days, especially for traditional events and rituals." (Informant 2, village elder)

Further insights from local cultural practitioners reinforce the notion that time calculation was closely tied to spiritual considerations:

“Not all days are considered the same, there are special calculations that must be followed so as not to violate customary rules..” (Informant 8, cultural practitioner)

From an analytical perspective, the existence of Watu Pawukon reflects an advanced local knowledge system that integrates cosmology, temporality, and ritual practice. Time, in this context, is not perceived as a neutral or linear construct, but as a sacred dimension that governs social and spiritual life.

Moreover, the presence of Watu Pawukon, alongside architectural fragments and relics dated to the 12th century, strengthens the assumption that Sirah Keteng once functioned as a center of spiritual and administrative activities during the period of the Wengker Kingdom or Ancient Mataram. This is further corroborated by local narratives:

“In the past, this place was believed to be the center of important activities, not only for rituals but also for government affairs.” (Informant 1, traditional leader)

Taken together, these findings indicate that Sirah Keteng represents a complex socio-cultural system in which material artifacts, temporal knowledge, and spiritual authority are deeply interconnected, reinforcing its historical significance as a sacred and institutional center in the past.

3.1.2 Sacred Ecology and Local Ecological Knowledge

Field findings reveal the existence of an ecological system that is perceived as sacred by the local community, reflecting a close interrelation between environmental elements and spiritual meanings. This system is not only conceptual but also enacted through everyday practices and ritual activities. Participatory observations conducted during the research period indicate that Sendang Beji continues to function as a central site for padusan (ritual purification bathing), which is performed regularly prior to significant cultural or religious events. The continued practice of padusan further demonstrates that sacred ecological values are actively maintained and transmitted across generations through embodied cultural practices. In addition to ritual use, the study also identifies the presence of a shared belief system regarding the interconnectedness of water sources within the site. Local narratives suggest that Sendang Beji is hydrologically and symbolically linked to other nearby sources, particularly Dong Lesung.



Figure 5. Sendang Beji

Source: Researcher Documentation

Sendang Beji, located within the site area, holds a profound function in Javanese cultural traditions, particularly as a place for padusan (ritual purification bathing). The water in the spring is believed to possess cleansing properties, not only in a physical sense but also in a spiritual dimension. This belief remains actively embedded in community practices, as reflected in interview data:

"Water from Sendang Beji is believed to be able to cleanse oneself before attending important events or traditional rituals." (Informant 7, site caretaker)

In various local narratives, the spring is frequently associated with prominent historical and mythical figures, such as Ki Ageng Kutu and a princess from the Jenggala Kingdom. These narratives are preserved and transmitted through oral tradition, reinforcing the symbolic significance of the site:

"It is said that in the past important figures such as Ki Ageng Kutu used this place for certain rituals.."
(Informant 2, village elder)

From an analytical perspective, the symbolism of water in this context represents a transition from impurity to purity, marking a liminal phase between the profane and the sacred. This aligns with broader interpretations of water in Javanese cosmology, where natural elements are imbued with spiritual meaning and moral significance. Furthermore, the reverence toward Sendang Beji reflects a cultural worldview in which nature is not merely a physical resource but an integral component of a living belief system. The spring functions simultaneously as a ritual space, a medium of spiritual transformation, and a cultural symbol of harmony between humans and the natural environment. This dynamic interplay between ecological elements and spiritual values illustrates how local wisdom operates as a sustainable system of meaning, continuously reproduced through practice, narrative, and collective belief.

Although such claims cannot be empirically verified through modern scientific methods, they function as culturally embedded knowledge systems that reinforce awareness of ecological interdependence. From an analytical perspective, these narratives operate as symbolic mechanisms that encourage respect, caution, and collective responsibility in managing water resources. Furthermore, these findings are supported by documentation data, including visual records and field mapping, which indicate the presence of subsurface structures such as underground channels or natural rock fissures connecting multiple water points in the area. Observations of terrain contours, water flow patterns, and geological formations suggest the possibility of a traditional hydrological system that has been recognized and utilized by the community over time. Archival photographs and local records maintained by site custodians also demonstrate the persistence of these physical features, strengthening the interpretation that the site embodies an indigenous system of environmental management.

3.1.3 Limited Institutional Integration into Education

Interview findings indicate a growing collective awareness among stakeholders regarding the educational potential of the Sirah Keteng site; however, this potential has not yet been systematically integrated into formal educational practices. This awareness is consistently articulated by educators and community members, particularly in relation to the missed opportunities for contextual and experiential learning:

"Schools rarely bring students here, even though this place can be a direct learning facility.."
(Informant 14, teacher)

This statement reflects a clear recognition of the site's capacity to function as an authentic learning environment, where students can engage directly with historical narratives, cultural symbols, and ecological practices. From a pedagogical perspective, such environments are highly aligned with the principles of experiential learning and place-based education, which emphasize active engagement with real-world contexts to enhance understanding and meaning-making. Despite this recognition, empirical evidence from document analysis reveals a significant structural gap. Local policy documents, including regional education plans and curriculum guidelines, do not contain explicit provisions regulating or encouraging the use of cultural heritage sites as formal learning resources. The absence of such regulatory frameworks suggests that the utilization of Sirah Keteng remains largely informal, sporadic, and dependent on individual initiative rather than institutional design.

Further interview data reinforce this finding, highlighting institutional constraints that limit integration:

“There are no official programs or guidelines linking this site to school learning activities.” (Informant 13, teacher)

“We support the idea, but without policy support, it is difficult to implement it consistently.” (Informant 4, village official)

Analytically, this condition reflects a policy–practice gap, where local cultural assets possess high educational value but lack formal recognition within the education system. This gap not only constrains the optimization of local learning resources but also risks marginalizing culturally embedded knowledge systems in favor of standardized, classroom-based instruction. Moreover, the lack of integration has implications for sustainability. Without institutional support, the transmission of knowledge related to Sirah Keteng relies heavily on community-based and informal mechanisms, which may weaken over time due to generational shifts and changing socio-cultural dynamics.

3.2 Discussion

3.2.1 Sirah Keteng and the Construction of Local Cultural Identity

Studies show that the *Sirah Keteng* site is understood by the community not only as an archaeological heritage but also as a symbolic space that holds the origin story and legitimacy of Ponorogo's local identity. The *Sirah Keteng* inscription, dated 1204 AD, records the name *Sri Jayawarsa Digwijaya Sastraprabhu*, providing early historical evidence of the region's presence within the ancient Javanese power and spiritual system. However, the community does not view the inscription merely as a written historical artifact, but also as an element of a series of folktales that remain alive in collective memory. The battle between *Ki Ageng Kutu*, *Bathoro Katong*, and *Selo Aji* is the central story associated with the term *Sirah Keteng*. The story of *Ki Ageng Kutu*'s beheading in a pond known as *Sirah Keteng* symbolizes defeat, a shift in power, and spiritual transformation. This story was passed down orally by village elders and traditional leaders, indicating that this site serves as a means of transmitting local values and history between generations.

From a symbolic anthropological perspective, *Sirah Keteng* can be seen as a *lieu de mémoire*, a space of memory where history, myth, and identity are continually negotiated (Geertz, 2019). Cultural identity is not solely shaped by historical facts, but also through symbolic narratives that give meaning to a place. Therefore, *Sirah Keteng* serves as a center for the development of Ponorogo's local identity, combining elements of heroism, spirituality, and cultural recognition. The presence of a head statue (*sirah*) associated with *Kala* or *Kalamakara* further reinforces the site's role as a guardian of the sacred space. Field findings indicate that the community changes the location of the statue based on cosmological considerations and sacred directions. This practice demonstrates that understandings of space based on Javanese cosmology persist and play a role in the community's cultural awareness. Theoretically, this confirms that cultural sites are not fixed, but are continually reinterpreted according to social context (Conti, 2024; Hwang, 2025).

These findings demonstrate that *Sirah Keteng* functions as a living heritage, a cultural heritage that is embedded in the social practices of the community. In an educational context, constructing a cultural identity based on local sites like this holds great potential as a source for contextual learning about history and character (Fitrah, 2022; Kusumswati, 2022). Local identity is not taught as an abstract concept, but rather experienced through spaces, symbols, and narratives that are close to the lives of students. Other research findings indicate that interpreting *Sirah Keteng* as a living heritage encourages the emergence of non-formal educational practices at the community level, such as local historical narratives by community leaders, youth participation in rituals, and the use of the site as a place to reflect on cultural values. These practices demonstrate that identity learning does not occur through formal mechanisms, but rather through direct experience, observation, and social participation. From a pedagogical perspective, this pattern aligns with experiential learning, where knowledge and values are conveyed through students' active participation in a real-life socio-cultural context (Rahmi, 2024).

However, without adequate educational policy support, the educational potential of *Sirah Keteng* risks marginalization and diminished significance. Integrating cultural sites into local educational policies is crucial to ensure that learning grounded in regional identity takes place not only at the community level but also achieves institutional recognition and continuity in teaching (Kartini' et al., 2025). Therefore, *Sirah Keteng* serves not only as a symbol of Ponorogo's cultural identity but also as a strategic reference in developing educational policies that focus on local wisdom, transforming cultural heritage into a dynamic and relevant learning resource for the younger generation.

3.2.2 Sacred Ecology and Local Knowledge in the *Sirah Keteng* Landscape

Research shows that the landscape of the *Sirah Keteng* site is closely tied to a sacred ecological system that has been built and maintained by the community since ancient times. The discovery of an underground tunnel connecting *Sirah Keteng*, *Dong Lesung*, and *Telaga Mantili Dirga* indicates the existence of a planned and sustainable water management system. The community's collective memory of the event of a straw being thrown into *Dong Lesung* and emerging at *Sirah Keteng* supports the assumption of an underground hydrological pathway connecting these water sources. *Sendang Beji* serves a primary function in the community's spiritual activities as a location for *padusan*, or holy bathing. Field observations indicate that this ceremony continues to be held at certain times, especially before traditional events or holy days. Air is understood not only as a source of physical sustenance but also as a spiritual means of cleansing the body, both physically and spiritually, marking the transition from a worldly state to a sacred one.

In the context of local ecological knowledge, the practice of *padusan* and the preservation of springs illustrate a traditional knowledge system that integrates ecological and spiritual aspects. Communities preserve water resources not through formal laws, but through traditional prohibitions, legends, and ceremonies that serve as tools of social control. This strategy has proven successful in maintaining the balance of aquatic ecosystems for centuries, long before modern conservation approaches were introduced (Argumedo et al., 2025; Ihsan et al., 2024).

The belief that *Beji* Pond is connected to the southern ocean through an underground passage demonstrates the Javanese people's holistic perspective on natural systems. Although mythical, this story serves as a cultural tool that encourages respect and caution in the use of water resources. This combination of myth and empirical observation demonstrates the local community's aptitude for understanding natural signs and managing them sustainably (Ijatuyi et al., 2025). The sacred ecology of *Sirah Keteng* demonstrates that the relationship between humans and nature is interwoven with interconnected ethical and spiritual bonds. In education, these values are crucial for strengthening environmental education rooted in local culture, as they help students recognize environmental sustainability not merely as a technical issue but also as a moral, social, and cultural responsibility passed down through generations (Alas et al., 2024).

The research results show that the implementation of sacred ecological practices in *Sirah Keteng* indirectly contributes to building community ecological awareness through cultural socialization. Village cleaning rituals, *larung sesaji* (offerings made in the water), and traditional taboos related to springs serve as channels for disseminating educational ecological values, even though they are not integrated into the official education system. This pattern emphasizes that local ecological knowledge serves as an active cultural curriculum in the community's daily lives.

With regard to education policy (Bangkara et al., 2022), the sacred ecology of *Sirah Keteng* provides a conceptual foundation for the development of sustainable environmental education based on relevant local wisdom. Integrating sacred ecological values into learning policies and practices allows education to not only convey scientific knowledge but also shape ecological ethics rooted in local culture. Thus, *Sirah Keteng* can be considered a strategic learning resource for linking environmental conservation, strengthening cultural identity, and developing education policies appropriate to the local context.

3.2.3 Implications of *Sirah Keteng* for Local Wisdom-Based Learning and Education Policy

The research findings indicate a shared awareness among traditional leaders, village youth, and local officials that the *Sirah Keteng* site holds significant potential as a learning resource that emphasizes local wisdom. This site is considered capable of serving as a contextual learning space that combines local history, cultural symbols, and character values, especially for the younger generation in Ponorogo. However, this educational use remains sporadic and has not been institutionalized within the formal education system, resulting in its influence on the learning process being suboptimal and tending to rely on individual or community initiatives (Putu et al., 2023).

A more in-depth analysis identified several structural barriers hindering the optimal educational role of *Sirah Keteng*. These barriers include limited supporting infrastructure, the site's lack of official cultural heritage designation, and the lack of a regional education policy that clearly encourages the use of local cultural heritage as a learning resource. The lack of integration into the local content curriculum and project-based learning has resulted in *Sirah Keteng* not being part of a planned and sustainable learning ecosystem.

From a place-based education perspective, the surrounding environment is considered an efficient learning tool to strengthen students' relevance, participation, and understanding of the subject matter. *Sirah Keteng* fulfills these principles because it has interconnected historical, ecological, and spiritual dimensions that are directly accessible to students. Local site-based learning enables a reflective process, where students not only acquire factual knowledge but also internalize socio-cultural values, identity, and responsibility (Nababan et al., 2025; Patras et al., 2023).

From a policy perspective, the use of *Sirah Keteng* as a learning resource requires a collaborative management model between the local government, educational institutions, and the local community. The local government plays a strategic role in developing regulatory frameworks, determining cultural heritage status, and providing infrastructure and funding support. Conversely, the local community serves as the guardian of the values, insights, and cultural traditions that give meaning to the site. This collaboration aligns with the paradigm of decentralized and community-based education, which places local actors as subjects, not merely objects of policy.



Figure 6. Conceptual Model of Sirah Keteng as a Cultural-Ecological Learning System

The conceptual model illustrates that Sirah Keteng operates as a living cultural-ecological system formed through the interaction between cultural identity (narratives, symbols, and rituals) and sacred ecology (water systems, beliefs, and environmental practices). These two foundational systems converge to create a dynamic socio cultural space where knowledge is continuously reproduced. Within this system, learning occurs informally through experiential engagement and community participation, aligning with the principles of experiential learning. Simultaneously, the embedded

ecological values foster environmental ethics rooted in local wisdom. These processes collectively generate significant educational potential, particularly within the framework of place-based education, where local environments function as primary learning resources.

However, the transformation of this potential into formal education is mediated by structural and policy contexts, including curriculum gaps, limited regulatory support, and institutional constraints. These barriers create a disconnect between local knowledge systems and formal educational implementation (Birhan et al., 2021; Prayitno et al., 2022). The model further demonstrates that effective integration into education policy can lead to two key outcomes: (1) institutionalization of cultural heritage as a learning resource, and (2) sustainability of local wisdom through intergenerational transmission. Thus, the model highlights the necessity of aligning cultural, pedagogical, and policy dimensions to ensure the sustainable educational utilization of local heritage sites.

Thus, *Sirah Keteng* is not only important as an object of cultural preservation, but also as a strategic tool in developing educational policies based on local wisdom in Ponorogo. Systematic integration of this site into formal learning and educational policies has the potential to strengthen character education, environmental awareness, and the sustainable formation of students' cultural identities. To illustrate the relationship between research findings and their practical applications, Table 1 presents an overview of educational and policy implications that can serve as a reference for policymakers and education practitioners (Birhan et al., 2021; Mahardhani, 2025).

Table 1. Implications of *Sirah Keteng* for Education and Education Policy

Key Research Findings	Educational Implications	Educational Policy Implications
<i>Sirah Keteng</i> as a site of local culture identity	A context-based learning resource for local history and identity	Integration of cultural sites in the local content curriculum
Historical narratives, symbols, and local rituals	Learning media character education and cultural values	Cultivation of cultural heritage-based learning guides
<i>Sendang Beji</i> and sacred ecology	Environmental education based on local wisdom	Educational policies that support local ecological knowledge
Community participation in conservation	Collaborative learning between schools and the community	Community-based educational policy model
Lack of regulations and institutional support	Limited utilization of local learning resources	Determination of cultural heritage and strengthening regional regulations

Overall, the mapping of educational and policy impacts shown in Table 1 confirms that the use of the *Sirah Keteng* site as a learning resource based on local wisdom requires an integrated approach between pedagogical, cultural, and policy aspects. The results of this study indicate that the successful integration of local cultural heritage into the education system depends not only on the site's historical value, but also on the existence of a regulatory framework, institutional support, and the active involvement of the local community. Consequently, the development of educational policies that are sensitive to the local cultural context is a crucial requirement to ensure that sites such as *Sirah Keteng* can operate sustainably as places of learning, media for character development, and tools for strengthening cultural identity for the younger generation. The innovation of this study lies in combining analyses of cultural identity, sacred ecology, and the impact of educational policies within a single empirical framework grounded in the local site (Shih, 2024).

4. CONCLUSION

The *Sirah Keteng* as a *living cultural ecological system* in which cultural identity, sacred ecology, and local knowledge are dynamically reproduced through narratives, symbols, and ritual practices, functioning simultaneously as an informal experiential learning environment. The key findings reveal that, despite strong community-based transmission and significant educational potential aligned with *experiential learning* and *place-based education*, the utilization of the site remains constrained by a clear policy-practice gap, including the absence of curriculum integration, regulatory frameworks, and institutional support. Theoretically, this study contributes by integrating cultural identity, sacred ecology, and education policy within a single empirical framework, extending the application of place-based learning beyond pedagogical discourse into the domain of cultural ecological systems. Practically, the findings imply the need for formal recognition of cultural heritage sites within education policy, systematic incorporation into local curricula, and the development of collaborative models involving schools, government, and communities. However, this study is limited by its reliance on qualitative data from a relatively small number of informants and the interpretive nature of culturally embedded narratives, which may not be fully generalizable. Future research is recommended to employ mixed-method approaches, expand comparative studies across similar cultural sites, and explore the development of scalable curriculum models that integrate local wisdom into formal education systems.

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