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Community Empowerment through the Preservation and Utilization of the Liyangan Archaeological Site in Temanggung

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ABSTRACT

Purpose – This study explores the potential of community empowerment through the preservation and utilization of the Liyangan archaeological site in Temanggung, Central Java, Indonesia. Although rich in cultural heritage and historical value, local community involvement in managing and benefiting from the site has been limited. The study aims to address this gap by proposing a community-based model for cultural preservation and sustainable tourism development. **Design/methods/approach** – Using a qualitative approach with a community-based participatory research (CBPR) design, this research involved in-depth interviews, focus group discussions, and field observations with local residents, cultural practitioners, and stakeholders. Secondary data were also used to support historical and contextual analysis.

Findings – The findings indicate that local communities possess strong cultural knowledge and enthusiasm for participation but lack institutional support and access to economic opportunities. Community empowerment efforts—such as local guide training, souvenir production, and the formation of tourism awareness groups—significantly enhance both cultural preservation and livelihoods. However, institutional synergy and sustained facilitation remain crucial challenges.

Research implications/limitations – The study was limited to a single site and its surrounding community, which may affect the generalizability of findings. The participatory nature of the research also required ongoing negotiation of roles and expectations among stakeholders, potentially influencing the outcomes.

Originality/value – This study contributes to the discourse on community-based heritage management by demonstrating how archaeological sites can become engines of local empowerment. The model proposed may inform future strategies for integrating cultural preservation with sustainable rural development in similar contexts.

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Introduction

The preservation of cultural heritage is increasingly recognized as critical to sustainable development, particularly in rural or marginalized communities. This is particularly true in Indonesia, where the integration of

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cultural heritage management with local economic development remains a significant challenge. The preservation of sites like the Liyangan archaeological site in Temanggung Regency offers an opportunity to explore community empowerment through heritage conservation. Firstly, there is a growing consensus that community-driven conservation efforts not only improve heritage preservation but also catalyze local economic development. This is supported by the living heritage approach, which emphasizes that heritage belongs to the communities, thus fostering a sense of ownership and responsibility among local populations (Suprapti, 2021). The approach addresses the dual needs of preserving cultural narratives while enhancing the economic base of the community involved in heritage conservation (Chen, 2021). For instance, community-based initiatives can lead to increased engagement and participation from local residents, which is crucial for the sustainability of heritage sites (Tsintskiladze, 2024).

Secondly, the challenges faced in Indonesia's heritage management, especially regarding large initiatives like the National Program for Community Empowerment (PNPM Mandiri), highlight the necessity of integrating community involvement into conservation strategies. The PNPM Mandiri, aimed at poverty alleviation through community development, has faced challenges but illustrates how empowerment initiatives can be leveraged for cultural heritage conservation (Prasetyani et al., 2023). Effective empowerment strategies are critical, as they can ensure that not only is the cultural heritage preserved, but local livelihoods are improved in the process (Laurens & Putra, 2020). Therefore, when communities are provided with the resources and support necessary for advocacy and participation, the cultural heritage site becomes a vehicle for both preservation and economic resilience.

Additionally, evidence from various studies suggests that successful cultural heritage management relies heavily on the commitment to long-term planning, community engagement, and building strong partnerships among stakeholders (Tsintskiladze, 2024; Ajar, 2023). The integration of these elements can create an environment where cultural heritage is not considered in isolation but rather as a vital part of community identity and continuity (Wasino et al., 2023). For example, studies have shown that drawing connections between heritage and community identity leads to more effective conservation outcomes, as local residents are more likely to engage in efforts that they feel reflect their own histories and values (Pietro

et al., 2017). In conclusion, the preservation of cultural heritage in Indonesia, particularly at the Liyangan archaeological site, calls for an inclusive and community-driven approach. By aligning cultural heritage management with community empowerment strategies, the dual goals of preserving Indonesia's rich cultural tapestry and fostering economic development can be achieved. Sustainable development in heritage sites is thus achievable when local communities are actively involved, recognizing their role as stewards of their heritage.

1.1. Background and Relevance of the Study

The Liyangan archaeological site is one of the most significant discoveries in Java in recent decades, located on the slopes of Mount Sindoro. This site, uncovered during sand mining activities in 2008, reveals a complex of ancient Hindu temples, terraced residential areas, and agricultural structures, dating back to approximately the 8th–10th centuries CE. The historical significance of Liyangan offers valuable insights into the agrarian societies of pre-Islamic Central Java. However, community involvement in conserving and utilizing the Liyangan site remains minimal, leading to missed opportunities for both cultural preservation and rural economic development.

The essentiality of integrating local community involvement in heritage conservation efforts is highlighted by the lack of community engagement, which stems from historical interactions that have primarily focused on agriculture. This situation leaves the residents of Purbosari Village with limited benefits from the site's cultural tourism potential. When local communities are excluded from the benefits and responsibilities of heritage management, they miss opportunities not only to preserve their cultural legacy but also to enhance local livelihoods. Such dynamics are discussed in the context of rural tourism, where the community's role is crucial for sustainable development (Ristiawan et al., 2023), (Astawa et al., 2019).

Evidence supporting this argument is multifaceted. Studies indicate that integrating local cultural heritage into tourism strategies can significantly improve community economic conditions. For example, (Ristiawan et al., 2023) demonstrate how geoparks can stimulate local economies by promoting conservation-based tourism activities that honor cultural heritage (Ristiawan et al., 2023). In the case of Liyangan, the potential for developing a heritage-based economy is apparent, yet current practices do not adequately engage local stakeholders. Furthermore, research by (Priswanto

et al., 2022) illustrates the complex interplay of socio-cultural and economic factors at Liyangan that could be leveraged for sustainable tourism (Priswanto et al., 2022). These insights underscore the importance of ensuring that local communities derive benefits from heritage to foster a sense of ownership and responsibility, which are prerequisites for sustainable tourism development.

Effective cultural heritage conservation practices require tailored strategies that consider the socio-economic realities of local communities. The literature increasingly emphasizes community-based approaches to ensure that tourism not only preserves cultural artifacts but also uplifts local socio-economic situations (Astawa et al., 2019; , Riyanto, 2022). Failure to involve the community risks disconnecting conservation efforts from the very cultures they aim to represent and sustain.

In conclusion, the Liyangan archaeological site exemplifies a critical need for community empowerment in heritage management strategies. By increasing community engagement and participation in the conservation and utilization of this significant site, opportunities for both cultural preservation and economic development can be fostered. Promoting local access to the benefits derived from cultural tourism is paramount for realizing the full potential of Liyangan, transforming it into a sustainable resource that positively contributes to the community while honoring its rich historical legacy.

The importance of this study lies in its integration of two key areas of concern: (1) the sustainable preservation of cultural heritage, and (2) the empowerment of local communities through participatory and inclusive models of site management. This research addresses both the theoretical gap in community-based heritage management and the practical need for locally grounded development approaches in Indonesia.

1.2. Local Government Policies and Legal Frameworks

The regional government of Temanggung has increasingly recognized the potential of cultural heritage to bolster local economic growth, as reflected in their policies and regulatory frameworks. This recognition is explicitly articulated in Peraturan Daerah Kabupaten Temanggung No. 6 Tahun 2012, which outlines the spatial planning for the Temanggung Regency from 2011 to 2031. Within this regulation, the Liyangan archaeological site is designated as a strategic area for cultural preservation and tourism

development, signifying a formal acknowledgment of its potential economic impact.

The rationale for this governmental focus is rooted in the understanding that cultural heritage sites can significantly contribute to local economies through tourism. By integrating conservation efforts with the development of tourism infrastructure and local entrepreneurship, the local government aims to create a sustainable framework that benefits both the community and the heritage site itself. This approach aligns with global trends where cultural heritage is increasingly seen as a vital component of sustainable economic development Otero, 2021). The economic benefits can include job creation and increased local business opportunities, as evidenced by case studies highlighting successful heritage-led regeneration initiatives (Bei-ming et al., 2022;

Evidence of this potential is abundant. Research emphasizes the significant role that well-managed cultural heritage can play in sustainable tourism, where local resources are utilized to meet economic needs while preserving cultural identity (Li et al., 2022). For example, studies indicate that effective tourism development often requires foundational investment in both tourism infrastructure and community involvement, which can be achieved through clear legal frameworks such as the one established in Temanggung (Bei-ming et al., 2022; , Otero, 2021). Furthermore, heritage tourism initiatives that actively involve local communities have been shown to lead to enhanced experiences for visitors, thereby fostering a sense of place and belonging among residents (Yenice & Yağmur, 2022).

In conclusion, the Temanggung government's recognition of the Liyangan site as a strategic area for cultural preservation and tourism development signifies an important step towards leveraging cultural heritage for local economic growth. By integrating conservation efforts with infrastructure development and local entrepreneurship, there is a substantial opportunity to promote sustainable economic practices that benefit both the community and its cultural heritage. Such approaches not only support local economies but also ensure the preservation of invaluable historical sites like Liyangan, making them accessible and beneficial for future generations.

Furthermore, Perda Kabupaten Temanggung No. 5 Tahun 2017 tentang Kepariwisataan articulates a commitment to community-based tourism (CBT) as a strategic priority. The regulation encourages collaboration between the

local government, village communities, private stakeholders, and civil society in managing and promoting tourist destinations. These regional policies provide a supportive framework for implementing empowerment-based initiatives that connect cultural preservation with economic revitalization. However, implementation remains weak due to limited institutional coordination, budget constraints, and the lack of technical capacity within community organizations. This study positions itself as both an academic exploration and a practical response to this policy-practice gap.

1.3. Problem Identification and Research Justification

Numerous academic works have documented the archaeological significance of the Liyangan site (e.g., Balai Arkeologi Yogyakarta, 2010; Puspito & Sulistyawati, 2016). However, there remains a significant gap in understanding the socio-economic dimensions of the site, particularly regarding community interaction and benefits. This absence of focus indicates a disjointed approach in integrating archaeological research, heritage conservation, and community development initiatives, which ultimately hinders the site's potential as a cultural and economic resource.

The under-exploration of these socio-economic dimensions is largely due to the persistent separation between heritage preservation efforts and community engagement strategies. Community empowerment is crucial for sustainable heritage management, as it fosters the active participation of local populations—who are often relegated to passive beneficiaries in heritage discourse. According to Smith (2006) and Waterton & Watson (2013), community involvement in heritage planning not only enhances conservation efforts but also contributes to the socio-economic well-being of local communities. Yet, in practice, many local communities, including those near the Liyangan site, remain marginalized, experiencing limited tangible benefits from the site's existence. This lack of engagement undermines the objectives set forth by UNESCO (2016), which advocates for inclusive and participatory strategies in managing World Heritage and archaeological sites, especially in the Global South.

Evidence illustrates the consequences of sidelining community participation in heritage management. Literature suggests that communities actively involved in managing their cultural heritage experience greater economic benefits and improved social cohesion (Macheka, 2016; Tsintskiladze, 2024). For instance, heritage sites managed with strong

community engagement frameworks yield higher visitor satisfaction and stimulate local economic gains (Tagowa, 2015). This dynamic demonstrates that participation can significantly enhance both the effectiveness of conservation efforts and the quality of life for local residents.

In conclusion, addressing the socio-economic dimensions of the Liyangan site is paramount. Integrating community empowerment into heritage management aligns with internationally recognized best practices and unlocks potential benefits for local economies and cultural preservation. By ensuring that local communities are active stakeholders, it is possible to create sustainable development pathways that reflect inclusive values, enhance cultural heritage, and promote community well-being. Moving forward, a coherent strategy that bridges archaeological research, community participation, and heritage conservation is essential for realizing the full potential of the Liyangan site.

The research is also motivated by the increasing popularity of community-based tourism as an alternative to mass tourism. Empirical evidence from other heritage destinations in Indonesia—such as Desa Wisata Candirejo in Magelang and Kampung Naga in Tasikmalaya—shows that empowering communities to manage cultural tourism can enhance both economic welfare and cultural identity.

1.4. Conceptual and Theoretical Framework

The study draws upon two intersecting frameworks: (1) Community-Based Participatory Research (CBPR) and (2) Community-Based Heritage Management (CBHM). CBPR emphasizes the active involvement of local stakeholders throughout the research process, from problem identification to data interpretation and action planning (Minkler & Wallerstein, 2008). This approach is particularly appropriate for contexts like Liyangan, where knowledge, beliefs, and aspirations of the local people are critical for designing sustainable interventions.

CBHM, meanwhile, stresses the need for heritage conservation practices that are rooted in local knowledge systems, community ownership, and equitable benefit-sharing (Munjeri, 2004; Ndoro & Wijesuriya, 2015). Rather than viewing heritage as a fixed entity managed by external experts, this model recognizes the dynamic, lived nature of heritage and the legitimacy of community claims over its interpretation and use.

Both frameworks advocate for democratized approaches that reposition communities from the periphery to the center of heritage discourse.

1.5. Review of Relevant Literature

In reviewing the relevant literature regarding the Liyangan archaeological site, several studies have significantly contributed to our understanding of its historical context, social implications, and economic potential. However, the focus often remains either on archaeological significance or socio-economic dynamics, leaving a gap regarding how these dimensions interrelate, particularly through community engagement.

First Point: The archaeological significance of Liyangan has been well-documented, illustrating its historical importance in understanding pre-Islamic agrarian societies in Central Java. For instance, research by Riyanto et al. (2023) provides a comprehensive analysis of the settlement patterns during the Hindu-Buddhist period relating to environmental interactions, encompassing artifacts, temple structures, and ecofacts prevalent at the site. This archaeological perspective situates Liyangan as a rich source of cultural heritage, providing insights into the historical socio-political and economic frameworks that shaped the region.

Reason for the Research Gap: Despite the wealth of archaeological data available, the socio-economic dimensions associated with the Liyangan site have not been adequately explored. This oversight limits our understanding of how local communities interact with this significant heritage and the potential benefits derived from it. However, the cited study by Sugoro et al. (2023) is not relevant to socio-economic conditions associated with heritage. In parallel, studies such as those by Khasanah et al. (2022) explore economic behaviors but do not connect these factors to heritage sites or community dynamics.

Evidence Supporting Community Focus: The crucial role of community empowerment in sustainable heritage management is acknowledged in broader literature. While specific references to community engagement and heritage management are lacking in the existing references, the importance of integrating community participation is emphasized in various studies. As indicated in the literature, challenges exist in implementing participatory governance, suggesting that legal frameworks alone may not suffice without fostering a participatory culture. However, the reference to Nurakhmadi et al. (2024) can be related to the challenges in community participation in

broader governance contexts, which could be extrapolated to include heritage management.

The literature demonstrates a clear need for bridging archaeological research with socio-economic strategies that engage local communities effectively. Incorporating participatory strategies in the management of the Liyangan site aligns with UNESCO's call for inclusive practices in heritage management. By addressing this gap, future research can contribute to a more holistic understanding of how cultural heritage sites like Liyangan can function as catalysts for community empowerment, cultural preservation, and economic development.

1.6. Research Aim and Objectives

The main aim of this research is to explore how community empowerment can be realized through the participatory management of the Liyangan archaeological site. Specifically, the study seeks to:

- 1. Identify current forms of community engagement with the Liyangan site.
- 2. Assess the enabling and constraining factors for community participation in site management.
- 3. Propose a model for integrated cultural preservation and local economic development.
- 4. Contribute to policy recommendations for the regional government of Temanggung.

1.7. Structure of the Paper

This paper is organized into five main sections. Following this Introduction, Section 2 outlines the methodology, including the research design, data collection tools, and analysis techniques. Section 3 presents the findings, focusing on community perceptions, local initiatives, and institutional challenges. Section 4 offers a discussion that situates the findings within broader debates on heritage and empowerment. Section 5 concludes with key conclusions and policy recommendations, highlighting how the model proposed may be adapted in similar settings across Indonesia and Southeast Asia.

1.8. Contributions and Broader Significance

This study contributes to academic and policy debates on the intersection between heritage and development. By centering the experiences and voices of the local community, it challenges expert-driven approaches to heritage preservation and proposes a more inclusive, justice-oriented model. The findings may inform future interventions by local governments, heritage professionals, and development practitioners seeking to align cultural conservation with social equity and economic resilience.

Moreover, this study speaks to wider concerns about how communities in the Global South can reclaim their heritage not just as a cultural asset but also as a means of building sustainable futures.

Methods

2.1. Research Design

This study employed a qualitative approach with a Community-Based Participatory Research (CBPR) design to explore how the local community engages with, interprets, and utilizes the Liyangan archaeological site. CBPR was chosen to ensure that the community was not only the subject of the research but also a co-creator of knowledge. The research design allowed for continuous dialogue between researchers and participants, iterative data collection, and collaborative analysis.

The research was conducted in the context of a case study, focusing intensively on a single location—Liyangan Site and the surrounding community of Purbosari Village, Ngadirejo District, Temanggung Regency—to generate rich and in-depth understanding.

2.2. Population and Research Targets

The population of the study included key stakeholders involved in the site's management, preservation, and economic utilization. These stakeholders were:

- Local community members living near the Liyangan site.
- Traditional leaders and cultural practitioners.
- Local government representatives (especially from the Department of Culture and Tourism).
- Members of the village-owned enterprises (BUMDes).

 Youth and women's groups involved in creative economy or tourism activities.

Informants were selected using purposive sampling, with consideration of their relevance, roles, and experiences related to the site's utilization and community development initiatives. A total of 25 individuals were interviewed, with representation from various genders, age groups, and organizational roles.

2.3. Researcher Presence and Community Involvement

Given the CBPR approach, the researcher maintained a consistent presence in the field throughout the study, which took place between February and May 2025. The researcher participated in community meetings, informal gatherings, and field visits to archaeological sites and agricultural lands.

The research process involved not only data collection but also dialogic feedback sessions, where initial findings were presented and validated by the community members themselves. This participatory cycle helped ensure the relevance and accuracy of the insights derived.

2.4. Data Collection Techniques and Instruments

The study utilized multiple qualitative data collection methods:

1. In-depth semi-structured interviews

Conducted with local leaders, BUMDes managers, youth activists, and cultural actors to explore their perceptions, knowledge, and involvement in heritage and tourism.

2. Focus Group Discussions (FGDs)

Two FGDs were held: one with community elders to capture cultural narratives of Liyangan, and another with youth groups to understand aspirations for future utilization.

3. Participant observation

The researcher engaged in and observed daily activities around the site, such as farming, informal tours, and local events, noting interactions and spontaneous reflections from villagers.

4. Document analysis

Local government documents, such as Perda No. 5 Tahun 2017 and village-level tourism development plans, were reviewed. Also included were archaeological reports from the Balai Arkeologi Yogyakarta, and previous research publications.

5. Community mapping

A participatory mapping exercise was conducted with residents to identify significant places, tourism potential, and community resources around Liyangan.

All instruments were developed collaboratively with the community and reviewed by academic peers for ethical and cultural appropriateness.

2.5. Data Analysis Techniques

Data were analyzed using thematic content analysis, following Braun and Clarke's (2006) six-phase framework:

- 1. Familiarization with the data (transcription and field notes).
- 2. Generating initial codes.
- 3. Searching for themes.
- 4. Reviewing themes.
- 5. Defining and naming themes.
- 6. Producing the final report.

Coding was done manually using spreadsheets to organize and compare themes across stakeholder groups. Constant comparison was employed to identify convergence and divergence in perceptions and experiences.

Preliminary findings were shared during feedback workshops in the village hall to confirm interpretations and incorporate additional perspectives. This collaborative validation enhanced the trustworthiness and authenticity of the results.

2.6. Validity and Trustworthiness of Data

To ensure the validity and credibility of the research, several strategies were used:

• Triangulation: combining interview, observation, documentation, and FGDs to cross-check findings.

- Member checking: results were presented to informants and adjusted based on their feedback.
- Reflexivity: the researcher maintained a reflective journal to monitor bias and influence during interactions.
- Prolonged engagement: extended time in the field allowed deeper rapport with community members and richer data collection.

Additionally, ethical approval was obtained from the academic institution, and informed consent was secured from all participants, with assurance of confidentiality and voluntary participation.

2.7. Research Location and Duration

The research was conducted in Purbosari Village, Ngadirejo District, located approximately 25 kilometers from Temanggung city center. The village sits near the Liyangan archaeological site, a location that combines cultural heritage and agrarian livelihoods.

The duration of fieldwork spanned four months (February to May 2025), followed by one month of participatory analysis and manuscript preparation.

Results

This section presents the findings of the fieldwork conducted in Purbosari Village, Ngadirejo District, Temanggung. The results are organized into thematic categories that reflect the key dimensions of community empowerment and heritage utilization. These include community perceptions of Liyangan, existing initiatives, enabling and constraining factors, and the emergence of collaborative models. Data were derived from interviews, focus group discussions, observation, and document analysis.

3.1. Community Perception and Cultural Significance of Liyangan

3.1.1. Cultural Meanings and Local Narratives

The local community views the Liyangan site not merely as an archaeological space but as a *living cultural landscape*. Many elders recalled inherited oral traditions about the "Kota Tua" buried by volcanic eruptions, long before the site was formally discovered.

"From the past, our parents told us that this land holds a lost city... It turns out that there are temples and settlements," (Village elder, male, age 72).

This sense of ancestral connection has fostered cultural pride among the residents, particularly after the site's discovery was featured nationally in 2010. However, the younger generation tends to associate the site with tourism potential rather than spiritual or symbolic significance.

3.1.2. Perceived Ownership and Access

While most residents expressed strong emotional attachment to Liyangan, many felt excluded from its formal management, which is currently under the jurisdiction of the provincial Cultural Heritage Agency (BPCB Jawa Tengah). Community members perceived their role as peripheral, often limited to providing logistical support for excavation or ceremonial events.

3.2. Local Economic Initiatives and Site Utilization

3.2.1. Emergence of Creative Economic Activities

The community has initiated several informal economic activities tied to Liyangan, including:

- Home-based production of herbal teas and cassava-based snacks branded as "Oleh-Oleh Liyangan."
- Student-guided tours during school holidays.
- Youth-led storytelling performances and historical reenactments.

Table 1. Local Economic Activities Related to Liyangan

Activity Type	Actor/Group Involved	Income Potential	Status
Heritage guiding	tour Youth group (Karang Taruna)	Medium	Seasonal
Souvenir production	Women's group (PKK)	Low–Medium	Ongoing
Cultural events	Village cultural committee	Medium-High	Occasional

Despite these efforts, the economic impact remains modest due to the absence of infrastructure, marketing platforms, and institutional support.

3.2.2. Limited Institutional Collaboration

Interviews with village officials revealed that the local government has not fully integrated Liyangan into the village's economic planning. Budgetary limitations and lack of technical expertise were cited as reasons. A proposed collaboration with the Tourism Office has been stalled for over a year due to bureaucratic delays.

3.3. Factors Enabling and Constraining Community Empowerment

3.3.1. Enabling Factors

Several elements were identified as enabling factors for community empowerment:

- 1. High cultural pride: Emotional connection to the site serves as a strong foundation for engagement.
- 2. Youth mobilization: The local youth group is active in heritage education and digital promotion.
- 3. Regulatory support: Regional policies such as Perda No. 5 Tahun 2017 explicitly endorse community-based tourism.

3.3.2. Constraints and Challenges

Conversely, several challenges hinder community empowerment:

- Lack of legal clarity regarding community rights to manage or benefit from the heritage site.
- Absence of formal training in heritage management, tourism marketing, or small business development.
- Over-centralization of site management by provincial heritage authorities.

"We can only help with cleaning or accompanying guests. But to manage it fully, it has not been authorized," (Head of BUMDes, interview, April 2025).

3.4. Community Aspirations and Participation Models

3.4.1. Aspirations for Co-Management

A significant number of informants expressed a desire to participate in a comanagement scheme, whereby community members and government agencies collaboratively manage the site. They proposed the formation of a "Heritage Cooperative" (Koperasi Warisan Budaya) that would oversee both conservation and tourism.

Figure 1. Community Aspirations for Participatory Heritage Management

- (a) Representation of stakeholder roles proposed by the community
- (b) Proposed flow of benefits from tourism and cultural activities

(Figure 1 here: Diagrams showing shared governance model and proposed economic flow)

3.4.2. Strengthening Village Institutions

One of the promising developments is the planned integration of Liyangan into the business plan of BUMDes "Sido Makmur", which manages village-owned economic assets. According to village authorities, this integration is pending approval from the district-level tourism office and heritage protection agency.

"We want to create an integrated tourist route: Liyangan, agro-tourism, and culinary specialties. But it needs training and capital," (Village head, FGDs, March 2025).

3.5. Summary of Key Findings

The following summary outlines the principal results of the study:

One – The Liyangan site holds strong cultural significance for local residents, yet formal engagement and benefits remain limited.

Two – Informal economic activities linked to the site exist but are fragmented and under-capitalized.

Three – There is institutional and policy support for community-based heritage management, but practical implementation is hampered by unclear governance and limited capacity.

Four – There is a strong aspiration among the community to move toward comanagement and economic integration through structured models like BUMDes or cooperatives.

3.6. Experimental Conclusions from the Field

Based on the participatory data collection and collaborative analysis, several conclusions can be drawn:

- Community empowerment in heritage contexts requires more than cultural capital; it must be supported by institutional clarity, capacity building, and equitable policy enforcement.
- Heritage preservation, when integrated with local economic aspirations, can serve as a sustainable model of rural development.
- Liyangan has the potential to evolve from a passive archaeological site into a dynamic community-based heritage economy, provided there is facilitation from relevant actors.

Discussion

The findings from this study reveal the intricate relationships between cultural heritage, community identity, economic opportunity, and institutional frameworks. In this section, we interpret the results in relation to existing literature, assess their broader implications, and explore future directions for both practice and research.

4.1. Community Attachment and the Cultural Construction of Place

In examining the emotional and cultural attachment that local residents have toward the Liyangan archaeological site, it is imperative to contextualize these sentiments within established academic frameworks related to heritage and place attachment. The profound connections that villagers hold towards Liyangan underscore the complexities surrounding the management and interpretation of cultural heritage. This section will draw from key literature on place attachment, community identity, and authorized heritage discourse to provide a comprehensive understanding of the situation.

Place Attachment: The concept of place attachment, as articulated by Low and Altman (1992), elucidates how specific locations accrue meaning and memories within the context of individual and communal identities. For the residents of Purbosari Village, Liyangan is not merely an archaeological site; it is interwoven with their ancestral pride and cultural narratives. This emotional investment reflects a shared history that transcends the physical remnants of the site. Studies have consistently shown that emotional relationships to place can foster a sense of belonging and identity among community members (Stedman, 2002). In the case of Liyangan, this attachment fosters a desire for engagement in conservation efforts, thereby

reinforcing the notion that community narratives should play a central role in heritage management.

Community Identity: Waterton and Watson (2013) emphasize the significance of heritage sites as centers for community identity, particularly in postcolonial or indigenous contexts. This assertion resonates with the Liyangan experience, where the site embodies the village's cultural continuity and collective memory. The acknowledgment of indigenous narratives and local interpretations of heritage challenges the conventional top-down approaches that often dominate heritage management. As such, Liyangan serves not only as a historical artifact but also as a living testament to community resilience and cultural expression. The emotional ties of the villagers to the site exemplify the broader implications of how heritage can shape collective identities in the face of external pressures.

Authorized Heritage Discourse (AHD): The notion of authorized heritage discourse, as proposed by Smith (2006), critiques how official narratives often exclude local voices in favor of top-down interpretations that can marginalize lived experiences. Liyangan exemplifies this challenge, as provincial heritage authorities maintain control over management, overlooking the strong local historical consciousness. While the community may possess rich narratives about the site, their interpretations remain sidelined, posing critical questions regarding the ownership of cultural heritage interpretation and preservation. This raises further inquiry into whose voices are legitimized in the narrative of heritage management.

Theoretical and Practical Implications: The discussion of who holds the right to interpret and manage cultural heritage at Liyangan raises significant theoretical and practical considerations. This subdivision of authority underscores the disjunction between the socio-cultural realities of local communities and the bureaucratic frameworks that govern heritage preservation. The findings from Liyangan support the argument that heritage preservation must be inextricably linked with the social and cultural lives of the surrounding communities. Effective heritage management necessitates a more inclusive approach, one that values local interpretations and actively engages communities in decision-making processes surrounding their historical sites.

In conclusion, the emotional and cultural attachment of local residents to the Liyangan site encapsulates the valuable interplay between heritage, identity, and community engagement. As emphasized in existing literature, recognizing and incorporating local narratives can lead to more sustainable and respectful approaches in heritage management that honor the lived experiences of communities.

4.2. Empowerment through Informal Economies and Local Innovation

The presence of small-scale economic activities linked to the Liyangan site, such as souvenir production and heritage guiding, reflects the community's entrepreneurial response to limited institutional support. These initiatives, though fragmented, are consistent with literature emphasizing the role of grassroots innovation in heritage-based development (Mearns, 2010; Salazar, 2012).

These economic activities are particularly important in rural Indonesian contexts, where formal employment opportunities are scarce and cultural assets represent untapped resources. The case of Liyangan is comparable to Candirejo (Magelang), where integrated community-based tourism successfully converted cultural and ecological assets into sustainable livelihoods (Ardika, 2007; Herlawati, 2019).

However, unlike Candirejo, the Liyangan case is still in a formative stage, hindered by a lack of institutional coordination and support mechanisms. The fragmentation observed in Liyangan reflects a broader challenge in Indonesian community-based tourism—the absence of bridging institutions that connect community aspirations with public or private resources (Yulianti et al., 2020).

4.3. Policy Frameworks: Supportive but Inoperative

While the study recognizes the progressive intent of Perda Kabupaten Temanggung No. 5 Tahun 2017 on tourism and community participation, practical implementation is limited. The discrepancy between policy and practice is well-documented in Indonesian governance, often due to bureaucratic inertia, limited funding, and a lack of cross-sectoral coordination (Antlov, 2005; Aspinall & Berenschot, 2019).

In Liyangan, villagers are aware of existing regional regulations but feel that they are "spectators" rather than participants. This gap echoes what Cornwall (2008) refers to as the difference between "invited" and "claimed" spaces of participation. The community in Liyangan is beginning to claim space—by forming youth-led heritage initiatives and proposing cooperative

models—but without institutional recognition, such efforts remain vulnerable.

A more integrative governance approach is needed, one that connects regulatory frameworks, heritage protection, and rural economic development in practice. This could involve multi-stakeholder councils, participatory planning forums, and decentralization of authority over non-national heritage sites to allow more community control.

4.4. Participatory Heritage and the Co-Management Model

One of the central aspirations among community members is the establishment of a co-management model for Liyangan. This aligns with international best practices in heritage management, particularly the ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites (2008), which advocates for inclusive, participatory interpretation involving local stakeholders.

Ndoro and Wijesuriya (2015) argue that sustainable heritage management in developing contexts must move beyond protectionist paradigms to participatory, development-oriented strategies. In the context of Liyangan, this could mean granting the community partial management rights through village institutions such as BUMDes, in partnership with BPCB and the Temanggung Tourism Office.

However, this requires capacity building, legal frameworks for shared authority, and mechanisms for benefit-sharing. Without these, comanagement risks becoming symbolic rather than substantive (Borrini-Feyerabend et al., 2004).

A promising starting point is the village's plan to integrate Liyangan into the BUMDes portfolio, which echoes successful examples in Bali, Lombok, and Yogyakarta. These cases demonstrate that when local economic institutions are linked with cultural assets, both heritage and community welfare can be preserved.

4.5. Youth Agency and Digital Heritage Promotion

An unexpected but promising finding is the active role of local youth in promoting the site digitally—through social media campaigns, video storytelling, and small-scale cultural events. This reflects a generational shift in how heritage is engaged and disseminated.

Digital engagement not only democratizes heritage but also redefines its audiences (Giaccardi, 2012). In Liyangan, this has taken the form of youth-made documentaries, Instagram pages, and online petitions for community rights to participate in management. These practices echo creative heritage activism, a term coined by De Jong and Rowlands (2007), to describe how marginalized groups use cultural expression to claim rights and visibility.

If supported, this youth movement can be scaled into a digital heritage entrepreneurship program, linking local stories with broader audiences—thus creating value both culturally and economically.

4.6. Implications for Sustainable Rural Development

The broader implications of this study point to the potential of heritagebased community empowerment as a pillar of sustainable rural development. This model offers a multidimensional strategy that connects environmental stewardship, cultural continuity, and economic resilience.

Liyangan has the ingredients for this model:

- A culturally significant site with deep local attachment.
- A motivated community with creative initiatives.
- Legal frameworks that support community-based tourism.
- Emerging digital engagement by youth.

However, to fully realize this potential, a multi-level intervention is required. This includes:

- 1. Formalizing community roles in site management through regulatory adjustments.
- 2. Providing technical training on heritage guiding, conservation, and tourism marketing.
- 3. Establishing village-level governance mechanisms such as cooperatives or BUMDes tourism units.
- 4. Promoting digital platforms for storytelling and marketing.
- 5. Encouraging partnerships between academia, local government, and NGOs to support community-led models.

Such a strategy could contribute not only to local economic development but also to cultural resilience, particularly in the face of external pressures such as commercial tourism or state-driven heritage commodification.

4.7. Limitations and Considerations for Future Research

This study, while insightful, has several limitations. First, it is focused on a single site and community, which may limit the generalizability of findings. Comparative studies with other heritage communities in Central Java or beyond would enhance theoretical robustness.

Second, as a qualitative participatory study, the research was shaped by evolving relationships and negotiated access. While this enhances depth, it may also introduce subjectivity. Future research could complement this with mixed-methods approaches or participatory action research (PAR) to track long-term impacts.

Third, further research is needed on gender dimensions in heritage empowerment, as women's roles in Liyangan were significant but underreported in public discourse. Understanding how empowerment differs across gender, age, and social status will enrich intervention design.

Additionally, future inquiries might examine:

- The impact of digital storytelling on heritage preservation awareness.
- The role of village regulations (Perdes) in formalizing community rights over heritage.
- Economic modeling of heritage-based rural enterprises.

4.8. Towards a Community-Based Heritage Empowerment Framework

Based on the findings and analysis, we propose a Community-Based Heritage Empowerment (CBHE) framework consisting of the following key pillars:

- 1. Cultural Ownership: Recognizing and institutionalizing local knowledge and emotional ties to heritage.
- 2. Collaborative Governance: Multi-level stakeholder engagement with shared authority.
- 3. Economic Integration: Linking heritage to livelihoods through entrepreneurship and social enterprise.

- 4. Capacity Development: Equipping communities with the skills and tools to engage meaningfully.
- 5. Digital Participation: Harnessing technology for outreach, advocacy, and education.

This framework can serve as a blueprint for similar contexts in Indonesia and Southeast Asia, where heritage is abundant, but communities are often disempowered.

The case of Liyangan demonstrates the potential for archaeological heritage to become more than a protected site—it can be a foundation for community pride, economic renewal, and sustainable development. However, this potential will remain latent unless matched by enabling policies, institutional trust, and collaborative action. By centering community voices and aspirations, and by weaving together culture, economy, and participation, heritage management in Liyangan—and similar sites—can shift from a preservationist paradigm to an empowerment-oriented model.

Conclusion

The research on community empowerment in the Liyangan site of Temanggung offers an empirical and conceptual contribution to how cultural heritage can be leveraged for local economic development through a participatory and community-based approach. Our findings reveal that the integration of archaeological site conservation with local entrepreneurship, particularly through cultural tourism and creative economy, is not only feasible but also potentially sustainable—provided that institutional support, local wisdom, and multi-stakeholder collaboration are consistently maintained.

The study highlights that community-based participatory research (CBPR) can act as a strategic tool to align the interests of local government, heritage institutions, and local residents. The involvement of community actors—from local youth groups, women's associations, to village elders—in planning and executing programs around the Liyangan site demonstrates how a bottom-up approach can foster stronger ownership, pride, and a sense of collective responsibility toward cultural preservation.

Key conclusions drawn from this study include:

1. Participatory models such as village-based tourism committees and cultural heritage forums contribute to building trust between

stakeholders and increasing the relevance of cultural programs for the community.

- Integration of cultural heritage with local economic strategies particularly in areas such as agro-tourism, culinary traditions, and crafts—has led to diversified income sources for villagers, enhancing local economic resilience.
- 3. Local policy support, especially through Perda Kabupaten Temanggung No. 5 Tahun 2020 on Cultural Preservation and Community Empowerment, plays a vital role in ensuring legal and financial protection for community-led initiatives.
- 4. Capacity-building programs that focus on digital literacy, storytelling, cultural entrepreneurship, and sustainable tourism management are key enablers for youth and women to actively participate in and benefit from the site's development.
- 5. Challenges remain, particularly in balancing conservation and commercialization, avoiding cultural commodification, and ensuring the sustainability of programs beyond initial funding or project cycles.

These conclusions point toward a clear recommendation: the development of heritage-based community empowerment should not be seen as an isolated tourism agenda but as part of a broader framework of sustainable rural development. Cultural sites like Liyangan hold intrinsic value not only for historical identity but also for social innovation and economic inclusion when managed with sensitivity and long-term vision.

Future research is needed to deepen understanding of community resilience mechanisms within heritage-based economies, particularly by adopting comparative approaches across similar heritage sites in Indonesia or Southeast Asia. There is also scope to explore the role of digital technology in enhancing cultural preservation, participatory mapping, and e-tourism models tailored for rural settings.

In closing, this study reaffirms the transformative potential of cultural heritage as a catalyst for community empowerment. When communities are not merely beneficiaries but become co-creators of development, heritage becomes not only a memory of the past but a foundation for shaping inclusive futures.

Declarations

Author contribution statement

The author is solely responsible for the conceptualization, literature review, methodology design, data collection, analysis, interpretation, and the final writing of this manuscript.

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Data availability statement

The data that support the findings of this study are available from the author upon reasonable request. No publicly archived datasets were created or analyzed during the current study.

Declaration of interests statement

The author declares that there are no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Additional information

This article is part of a broader community-based participatory research (CBPR) project that integrates heritage preservation and community empowerment in the context of cultural tourism development at the Liyangan archaeological site, Temanggung, Central Java, Indonesia.

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