



# The Socio-Cultural Basis of Sendang Lamongan Batik: An Integrated Cultural-Historical Analysis

Angga Fajar Ramadhan<sup>1,2\*</sup>, Syakir<sup>2</sup>, Djuli Djatiprambudi<sup>3</sup>, Muhammad Ibban Syarif<sup>2</sup>

<sup>1</sup>Elementary School Teacher Education, Faculty of Education, Universitas Negeri Gorontalo Kota Gorontalo, Provinsi Gorontalo 96128, Indonesia

<sup>2</sup>Art Education, Faculty of Languages and Arts, Universitas Negeri Semarang Kota Semarang, Jawa Tengah 50229, Indonesia

<sup>3</sup>Art Education, Faculty of Languages and Arts, Universitas Negeri Surabaya Surabaya, Jawa Timur 60213, Indonesia

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## Abstract

This study investigates the socio-cultural foundations underlying the emergence and development of Sendang Lamongan Batik across centuries. Employing a qualitative method with an anthropological-historical approach, the study integrates Fernand Braudel's concept of long-term history (*longue duree*) and Marvin Harris's cultural materialism into a unified analytical framework. Data were collected through direct observation, in-depth interviews with two village heads, three artisans, three entrepreneurs, and two batik traders, and archival documentation. Triangulation of informants, methods, and timeframes was conducted to ensure data credibility. Data analysis followed the stages of reduction, presentation, and conclusion drawing. The findings reveal that the emergence and development of Sendang Lamongan Batik resulted from the dialectical interaction among three interlocking basis: ecological-material, socio-structural, and cultural-ideological. This study proposes cultural-historical materialism as an integrated analytical framework for tracing cultural phenomena back to their material roots and long-term historical origins.

## 1. INTRODUCTION

Java's north coast has functioned as a major node of regional and international trade since the first century AD, connecting the island of Java along with Timor-Papua, Maluku, Sulawesi, Nusa Tenggara, Lombok, Bali, Kalimantan, and Sumatra [1], [2], [3]. As well as Nusantara to China, India, Persia, Arabia, and European [3], [4]. Unlike the southern coast of Java, the northern littoral is characterized by geographic openness, demographic

\*Correspondence author, Contact(s): [anggafajar@ung.ac.id](mailto:anggafajar@ung.ac.id)

mobility, and a pragmatic, trade-oriented social ethos [5], [6], these conditions that made it receptive to external influences and capable of transforming foreign material inputs into locally distinctive cultural forms.

Among the commodities circulating within these networks, cloth and batik occupied a position of exceptional importance [7], [8], [9]. Textiles functioned not only as trade goods but as instruments of means of payment, status markers, and cultural signifiers [9]. The material salience of cloth in this context is reflected in the proliferation of batik production centers along the north coast, like Jetis (Sidoarjo) [10], Sendang (Lamongan) [11], Kerek (Tuban) [12], Lasem (Rembang) [13], Kauman (Pekalongan) [14], Dermayon (Indramayu) [15], and Trusmi (Cirebon) [16].

This phenomenon indicates a basis underlying the growth and development of batik in Java's north coast, particularly in the Sendang region. While scholars have examined individual batik centers as cultural or commercial phenomena, few have asked the prior question, what a basis underlying the emergence of and development of batik in the Sendang area across centuries?

Previous research that is similar to the context of this research was conducted by Rosyid, who found that the Cirebon mega mendung motif is a symbol of cultural openness and the result of acculturation between Chinese, Islamic, and Javanese influences. Coastal batik, in his view, grew from the dynamics of trade networks that connected the north coast of Java with the outside world since the 15<sup>th</sup> century [17]. However, Rosyid's study focuses exclusively on the semiotic-symbolic dimension of motif formation and does not account for the long-term historical structures ecological conditions, production systems, or material infrastructure that shaped the emergence of coastal batik centers. Furthermore, by Aridi, it was revealed that the sustainability of coastal areas depends on the ability of communities to adapt to global economic fluctuations [18]. Although Ariadi's work offers valuable insights into coastal community resilience, it operates primarily at the level of contemporary economic sociology and does not engage with the historical depth or cultural-material foundations specific to batik production. Next, by Ginting, Pandanwangi and Wenas, they found that the Lasem batik motif is a symbolic expression of cultural plurality formed by the interaction of Javanese and Chinese ethnic groups. Lasem in this case becomes a representation of a dynamic coastal cultural space [19]. However, Ginting et al. do not examine the material-ecological factors (like natural conditions, or textile trade infrastructure that enabled Lasem to become and sustain itself as a batik production center across centuries. Their analysis thus leaves open the question of why certain coastal areas, and not others became enduring batik centers. Meanwhile, Rinaldi showed the marketing strategy of Batik Paoman, as one of the local culture-based creative economy products that faces challenges in the digital era using a combination marketing strategy that includes conventional promotion through exhibitions, galleries and local partners, digital promotion through social media, collaboration with local fashion designers, diversification of batik products into modern fashion forms, and the use of cultural narratives (storytelling) as a promotional attraction [20]. Rinaldi's contribution, while practically useful, is oriented toward contemporary market dynamics and does not address the historical or structural conditions through which Batik Paoman acquired the cultural legitimacy it now leverages commercially.

Although previous research has discussed the social and cultural aspects of coastal batik, the foregoing review reveals critical lacunae in the existing scholarship. First, there is a persistent contradiction between studies that emphasize cultural and symbolic dimensions [17], [19] and those that foreground socioeconomic or ecological factors [18], [20], yet no study has attempted to reconcile or integrate these perspectives within a single analytical framework. Second, the study most proximate to the present research Ginting et al.'s analysis of Lasem batik [19], addressing structural conditions, but ultimately remains confined to ethnic and symbolic interaction, don't a materially grounded, long-term historical account. No existing study has applied an integrated material-historical framework to any batik center in Java's north coast, and the case of Sendang, Lamongan, minimal unexamined in the academic literature. This region has a unique historical character as a hub for trade and the spread of maritime culture on the north coast of Java, yet it has not received much in-depth academic attention. The absence of scholarship on Sendang is not merely an oversight but reflects a broader tendency in batik studies to focus on commercially prominent centers while neglecting smaller but historically significant ones. The present study addresses this gap by situating Sendang within the broader academic debate about the relationship between material conditions and long-term cultural formation in coastal Southeast Asia.

To answer the question about the socio-cultural basis that gave rise to and developed Sendang batik, this study uses two complementary theoretical approaches, namely Fernand Braudel's theory of social history and Marvin Harris's theory of cultural materialism. Braudel's *longue durée* provides the temporal scaffolding necessary to trace how geographical and economic structures persist across centuries, but it lacks a systematic account of the mechanism by which material conditions generate specific cultural forms. Harris's cultural materialism supplies precisely this mechanism, a causal model linking ecological and technological infrastructure to social organization and ideological superstructure, yet it tends to operate at a more synchronic, cross-cultural level rather than within the deeply historicized analysis that Braudel's framework demands.

This research contributes to strengthening theoretical understanding of the relationship between the dynamics of social history and material conditions in the formation of coastal batik traditions, particularly in the Sendang area of Lamongan. Through the integration of Fernand Braudel's social history perspective and Marvin Harris's cultural materialism, this research offers a new approach to reading batik not merely as an artistic product, but as the result of long-term socio-cultural and economic constructions of coastal communities. This claim of novelty is grounded in the preceding literature review, which demonstrates that no prior study has applied this theoretical combination to any coastal batik tradition in Indonesia, and that the structural and material dimensions of Sendang's batik heritage remain wholly unexamined. The contribution is therefore both empirical and theoretical, in that it proposes and tests an integrated cultural-historical framework applicable to comparable cases elsewhere in maritime Southeast Asia. Its practical contribution lies in strengthening the model of batik education and preservation based on the local context and historical-ecological basis of the coastal communities of north Java.

## 2. METHODS

This study employs a qualitative method with an anthropological-historical approach. The anthropological-historical approach is operationally suited to the integration of Braudel's social history and Harris's cultural materialism because it simultaneously attends to two analytical registers, the *longue durée* of material and structural conditions that Braudel identifies as the deep substrate of historical change, and the ecological-technological infrastructure that Harris designates as the primary determinant of cultural form. Anthropological inquiry provides access to the emic dimensions of batik practice, while the historical orientation situates these within the diachronic structures that have shaped the Sendang community across centuries. The integration is methodological as well as theoretical. Ethnographic data collection generates the evidence base from which Braudelian structural layers and Harrisean infrastructural categories are identified and analyzed [21], [22].

This research was conducted in Sendangduwur Village and Sendangagung Village, Paciran District, Lamongan Regency. This research was conducted in Sendangduwur and Sendangagung Villages, Paciran District, Lamongan Regency. These sites were selected based on two theoretically motivated criteria. Geographically, both villages occupy a limestone hill terrain on Java's north coast, distinct from the lowland settlements that characterize most other coastal communities. Demographically, the community's homogeneity contrasts with the religious and ethnic pluralism of other north coast populations, enabling this study to isolate the effects of material-ecological conditions from those of cultural pluralism that have dominated explanations of batik centers such as Lasem [19] and Cirebon [16]. Site selection the explanatory power of material-historical factors independently of the ethnic-symbolic variables that dominate the existing literature.

Data collection was carried out through: (1) direct observation conducted from 2023 to 2025 by observing, photographing material and batik activities, and recording information at the research site; (2) documentation of village community demographic archives; (3) conducting in-depth interviews with the heads of Sendangagung Village and Sendangduwur Village as indigenous village communities, the highest policy holders at the village level, as well as those who know the conditions and problems in the village. Furthermore, in-depth interviews were conducted with three senior batik craftsmen to determine the history, inheritance system, production, and development of batik technology in the Sendang area, three batik entrepreneurs and two Sendang batik traders to find out the social system, economic capital, price developments, marketing and technology in the batik trade.

Data-theory integration is operationalized through two sequential stages. First, Braudel's temporal framework organizes the empirical data into three layers: (1) Archival and ecological data are read at the *longue duree* level to identify deep structures shaping Sendang's batik tradition; (2) The changing social cycle of batik over the decades are read at the *conjuncture* level; and (3) individual informant narratives are treated as *evenementielle*. This layered reading prevents conflating short-term changes with structural transformation. Second, Harris's three-category model categorizes the findings: (1) Ecological conditions (limestone terrain, cultural artifact, wax, cloth, and dye plant availability), production technology (canting tools, dyeing methods), and subsistence economy are classified as infrastructure; (2) Kinship-based transmission, agent, specialization, hierarchy, labour division among craftsmen, entrepreneurs, and traders, and

as well as the formation of a batik association; (3) While motif symbolism and community ideological narratives form superstructure. Harris's causal hierarchy is maintained throughout, treating infrastructural findings as explanatorily primary. The two frameworks are integrated by mapping Braudel's temporal layers onto Harris's categorical levels: *longue duree* findings populate infrastructure, conjunctural findings articulate structure, and *evenementielle* data illuminate superstructure [23], [24], [25].

Reduction data reduction done with selecting data relevant to Harris's infrastructural, structural, and superstructural categories and Braudel's temporal layers. Data display done with organizing reduced data into matrices and narrative accounts to reveal relationships across the two research villages. Conclusion drawing through an iterative process of verifying emerging patterns of field materials [22], [26].

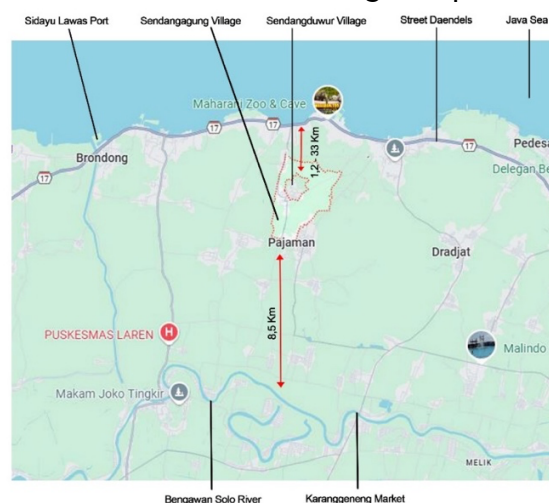
Source triangulation was conducted across three dimensions: (1) across informant categories, whereby data from village heads were cross-checked against craftsmen, entrepreneur, and trader accounts, with discrepancies treated as analytically significant and subjected to follow-up probing; (2) Across methods, whereby interview data were verified against observation records and archival documents [21], [27]; (3) Across time, whereby observations at different points in the 2023-2025 fieldwork period were compared to distinguish stable structural patterns from conjunctural variations. This multi-dimensional triangulation enhanced the credibility and internal validity of the findings [27].

Generative AI tools (OpenAI) were used in process to support language refinement. No AI tools were used in data collection, data analysis, or interpretation. All empirical findings and theoretical arguments were developed independently by the author.

### 3. RESULTS AND DISCUSSION

#### 3.1. Material Infrastructure and Ecological Foundations of Sendang Batik

The physical geography of the Sendangagung and Sendangduwur villages occupy a limestone hill terrain on Java's northern coast, located between 1.2 to 3.3 kilometres from the Java Sea and 8.5 kilometres from the Bengawan Solo River. Furthermore, this area was close to Jalan Daendels and the Sidayu Lawas Port. This strategic location made the Sendang area part of a thriving maritime economic network during that period (see figure 1).



**Figure 1.** Geography Of The Sendangagung And Sendangduwur Villages  
[Source: Adapted from Google Maps, 2025]

This limestone hill composition renders the area structurally unsuitable for rice cultivation. Within the framework of Harris's eco-technological determinism, this fact represents an infrastructural condition that historically denied local communities the opportunity to develop the agricultural sector, thereby steering them toward adapting to alternative economic strategies. The ecological constraint is confirmed by Mr. Barur Rohim :

*“The Sendang area is located in a limestone hilly region. The soil here is less fertile for rice cultivation, so most of the land is unsuitable for agriculture. Most residents depend on crafts and business for their livelihoods”* (Interview with Mr. Barur Rohim, Head of Sendangduwur Village, February 4, 2024).



**Figure 2.** Material Condition of the Sendang Area  
(Image Shown from Below and Above Amitunon Hill)  
[Source: Angga Fajar R, 2023]

This limestone hill composition renders the area structurally unsuitable for rice cultivation. Meanwhile, a limestone hill landscape separates the local community from the fishing settlements located in the delta areas along the coastline. These conditions also result in few local residents choosing a career as a fisherman (see figure 2). Braudel refers to such conditions as *longue durée* structural constraints that led the Sendang community to focus on entrepreneurial sector and batik production. Shahrudin et al. affirm that material production conditions are primary determinants of batik's geographic clustering, this finding corroborating the batik Sendang case [28]. Within the framework of Harris's eco-technological determinism, this fact represents an infrastructural condition that historically denied local communities the opportunity to develop the agricultural and sector and fishery, thereby steering them toward adapting to alternative economic strategies.

The geographical position of the two villages in relation to maritime trade routes made them strategic locations within the coastal exchange network that shaped the economy of Java's north coast. The emergence and development of the batik tradition along Java's north coast, particularly in the Sendang area cannot be separated from the region's long-term historical structure. Since the 1<sup>st</sup> century CE, the Java Sea has served as a silk trade route connecting various regions and nations [3], [4]. In the 15th century CE, a wharf (Sidayu Port) was constructed in the coastal area of Lamongan to facilitate the docking of vessels and the loading and unloading of goods [29]. By 1596, the town of Sidayu had become a thriving center of commerce, notably establishing trade ties with the Maluku Islands [30], [31], [32]. A century later, Chinese and Arab communities residing along Java's north coast were trading batik cloth as a highly lucrative primary commodity. Batik traders even commissioned work from artisans who were widely distributed across the villages at the time [33]. Robust trade flows and high demand for batik commodities created an economic incentive that encouraged the local population to engage in batik production. These factors served as a driving force a *longue durée* element behind the emergence of the batik tradition in the Sendang region.

The origins of the Sendang batik tradition can be traced back to the era of Sunan Sendang Duwur. It is believed that the local community acquired batik knowledge and skills through

Dewi Sukarsih, the daughter of Tumenggung Sidayu and mother of Sunan Sendang Duwur. This perspective is supported by a similar historical instance involving R.A. Kartini (a noblewoman) and the local community (women of Jepara) in the 18<sup>th</sup> century [8]. The transmission of batik skills was also facilitated by efforts to empower women through education and economic skills. However, through historical research, Rif'ah revealed that the Sendang batik tradition originated with Raden Ayu Tilarsih, the daughter of Pangeran Ngrenget, wife of Sunan Sendang Duwur, and daughter-in-law of Dewi Sukarsih who introduced the batik tradition and settled in the Sendang region during the 15<sup>th</sup> century. Although the initial claim was speculative and reinforced by later historical parallels, both figures were noblewomen who were contemporaries and members of the same family. These findings substantiate the history of the batik tradition in the Sendang area.

In terms of its refinement, Sendang batik underwent significant development during the 20<sup>th</sup> century, spanning techniques, technology, and coloring methods. Mrs. Mutrika, a senior artisan in Sendangduwur, outlined regarding these developments:

*“Sendang Batik now comes in hand-drawn, stamped, and screen-printed varieties. Originally, only the hand-drawn type existed. I learned the craft from my mother while I was still in school, she showed me the tools and their functions such as the traditional canting and the gosok (a tool for removing wax). Before the 2000s, canting tools and wax supplies were brought in from Pekalongan, while the fabric came from Surabaya and Tuban. Not long after, however, locals began making their own canting tools. As for the fabric, it was purchased from vendors who visited Sendang” (Interview with Mrs. Mutrika, a senior artisan in Sendangduwur Village, October 31, 2023).*

This demonstrates the evolution of batik varieties in the Sendang region, what began solely as hand-drawn batik eventually expanded to include stamped, and screen-printed styles. The use of printing and screen-printing techniques reflects technological advancements in the local batik industry. Material constraints also fostered interactions between batik agents in Sendang and other batik centers, such as Tuban and Pekalongan.

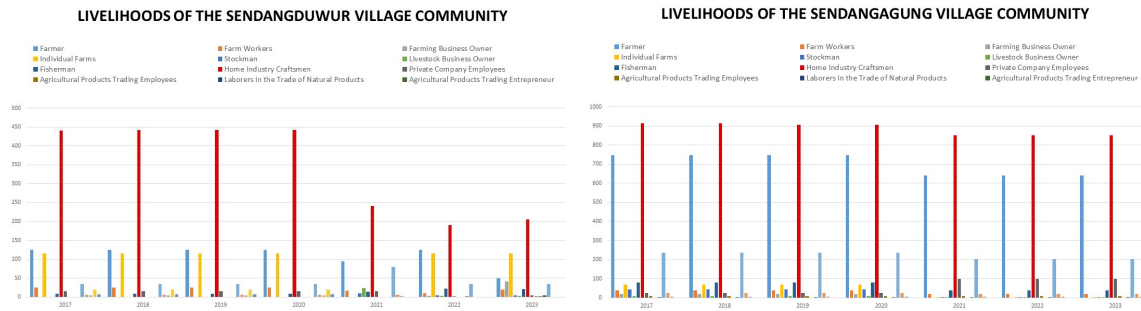
Furthermore, there is a crucial infrastructure dependency. Key raw materials such as canting tools, fabric, and wax are sourced partly from Pekalongan and Surabaya. This situation situates Sendang within a broader north-coast trade network, aligning with the findings of Wijayanti and Fakhriati regarding a similar dependency in the gedhog weaving tradition of Tuban [22].

### ***3.2. The Construction of the Social Structure of Batik and the Structural Reproduction of Batik Production***

The Sendang community responded to ecological limitations by creating an economic adaptation strategy through the batik sector. Batik became a form of production activity that did not depend on soil fertility, but on manual skills, creativity, and distribution networks. The transition from agriculture to the batik home industry illustrates the community's ecological rationality in utilizing available resources, in accordance with Harris's idea that cultural systems survive because they are efficient with respect to their material and ecological conditions [24], [34].

Demographic data regarding the livelihoods of the residents of Sendangduwur and Sendangagung Villages confirm this, craftsmanship appears to be more popular and dominant compared to other occupations (see figure 3). Sendangduwur Village sits precisely at the summit of a limestone hill and has a considerably smaller population than Sendangagung Village; nevertheless, the overwhelming majority of its residents are engaged in batik production. Sendangagung Village, by contrast, occupies the valley at the foot of the limestone hill, where the terrain is more varied. The most of the are of the village,

dominated by limestone soil, is the center of batik activity, while the southern part consists of flat, fertile, non-calcareous lowland suitable for agricultural cultivation. It is therefore unsurprising that farming also constitutes a significant livelihood in Sendangagung. The number of artisans decreased significantly in 2021 due to the pandemic. However, the dominance of the batik industry remained stable. Although this demographic data was collected in the 21<sup>st</sup> century, the pattern reflects how local community respond and decide what job they will pursue.



**Figure 3.** Demographics of the Livelihoods of the People of Sendangduwur Village and Sendangagung Village  
[Source: Desa Sendangduwur dan Desa Sendangagung, 2023]

In terms of social structure, the Sendang batik system exhibits a distinctive division of labor. (1) The practice of batik production, supported by various tools and distribution has encouraged the emergence of Sendang batik agents, such as batik craftsmen, batik entrepreneurs, and batik merchants. Among these key players, agent emerged within the artisan community, such as: pengeblad, penglowong, screen printer, penembok, dye/pencolet, and pelorod (see figure 4). This social structure was formed as a consequence of the household-based production method. Women became the main actors because batik activities could be carried out at home without neglecting domestic responsibilities.

*"I can work on batik-making once my household chores are done. Basically, I do it whenever I have spare time. It is actually a very flexible activity"* (Interview with Mrs. Feni Restiana, Batik Artisan from Sendangagung Village, October 9, 2024).

*"Batik production does not require a large initial investment. Artisans can accept batik-making work from entrepreneurs without having to spend a single penny of capital. In fact, the business started with only a small volume of production. A portion of the profits from sales was reinvested to increase capital, and this process continued until the business reached its current state"* (Interview with Mrs. Indah, a batik entrepreneur in Sendangduwur Village, March 10, 2024).



**Figure 4.** Specialization in Sendang Batik Craftsmanship: Pengeblad, Penglowong, Screen Printer, Penembok, Dye/Pencolet, And Pelorod  
[Source: Angga Fajar R, 2024 and Rif'ah, 2025]

(2) Each type of batik-related actor possesses a distinct hierarchical structure. Among batik business operators, the following hierarchy emerges: (a) business owners, (b) permanent workers, and (c) freelance workers. Among batik traders, the hierarchy consists of: (a) large-scale, (b) medium-scale, and (c) small-scale traders.

*"Here, there are batik artisans, entrepreneurs, and traders. Batik artisans only accept orders from entrepreneurs to apply batik with the canting and dye it. A batik entrepreneur who produces batik in their home. Batik entrepreneurs have the capital to establish batik production. The batik companies range from large ones to moderately sized ones, as well as those just starting out. Some even have batik showrooms in their homes. Batik traders only sell batik from entrepreneurs. Among the traders, some own large shops, others have medium-sized ones, and some operate on a small scale"* (Interview with Mrs. Indah, a batik entrepreneur in Sendangduwur Village, March 10, 2024).

Meanwhile, among batik artisans, the structure comprises: (a) Pengeblad (Pattern Tracer), a master artisan, this role demands original ideas, creativity, a strong imagination, and precision. (b) Penglowong (Outline Maker), a master artisan, this role holds the highest position in the artisan hierarchy because it determines the beauty and primary quality of hand-drawn batik, requiring high skill and extensive experience. (c) Penyablon (Screen Printer), a production role, this position prioritizes speed for mass production using silk screens. (d) Penembok (Blocker/Filler), an assistant artisan, although skilled in using the canting (wax pen), their tasks are limited to blocking or covering large areas of the fabric with wax. (e) Pencolet (Colorer), a low-level manual worker, the pencolet simply applies color according to the business owner's instructions. (f) Pelorod (Wax Remover), a low-level manual worker, this role requires minimal artistic skill and entails high occupational safety risks. Within a batik business, the workforce consists of the juragan (business owner), permanent workers, and casual daily laborers [35]. (3) The institutional dimension in confirmed two village-level associations batik. The formation of a batik community Sendang batik agents then formed a domestic organizational structure in the form of the Sinande Batik Association in Sendangduwur Village in 2010 and the Sendang Lamongan Batik Association in Sendangagung Village in 2014.

*"The Batik Sinande Association was established in 2010 as a response by the Sendangduwur Village government to foster equitable prosperity through batik orders and educational programs for all local artisans and batik business operators. The association also serves as a liaison connecting the Provincial Government, the Lamongan Regency Government, and the Village government with these artisans and business*

operators. This batik community became a place for Sendang batik agents to socialize, socialize, collaborate, deliberate, engage in collective entrepreneurship and learn together” (Interview with Mr. Barur Rohim, Head of Sendangduwur Village, September 21, 2024).

“Sendangagung Village had a batik community known as the Asosiasi Petik Hasil, but it was soon renamed the Asosiasi Batik Sendang Lamongan (ABSELA). The name was likely changed because the original was deemed unsuitable for the batik-making activities or the village's identity. The ABSELA community was established on August 22, 2014” (Interview with Mrs. Feni Restiana, Batik Artisan from Sendangagung Village, July 21, 2024).

In Harris's perspective, this shows how social structures and cultural values (structure and superstructure) adapt to economic needs and material efficiency [24], [34]. Table 1 presents the social structure formed within the Sendang batik community, encompassing agents, specializations, and hierarchies.

**Table 1.** Agents Notice, Specialization and Hierarchy are Noticed Sendang  
[Source: Author's interpretation, 2025]

| Batik Agent         | Agent Specialization and Hierarchy |                   |                   |          |              |         | Batik Community                                                               |
|---------------------|------------------------------------|-------------------|-------------------|----------|--------------|---------|-------------------------------------------------------------------------------|
|                     | a                                  | B                 | c                 | d        | e            | f       |                                                                               |
| Batik Craftsmen     | Pengeblad                          | Penglowong        | Screen Printer    | Penembok | Dye/Pencolet | Pelorod | Sendangduwur Sinande Batik Association and Sendang Lamongan Batik Association |
| Batik Entrepreneurs | Business owners                    | Permanent workers | Freelance workers |          | -            | -       |                                                                               |
| Batik Merchant      | Large-scale                        | Medium-scale      | Small-scale       |          | -            | -       |                                                                               |

The infrastructural conditions established in section 3.1 generated and reproduced social structures through which batik production has been organized across historical time. This section documents those structures at the temporal level of conjuncture and Harris's structural category.

The foundational structural mechanism is kinship-based transmission. Mr. Panut Supodo, Head of Sendangagung Village, described this intergenerational system:

“From an early age, the children of Sendang village have been accustomed to helping their parents with their work. In between school and playtime, the children are also provided with skills in batik-making for girls. This consistent practice within every family has resulted in almost all the girls in Sendang village possessing batik skill” (Interview with Mr. Panut Supodo, Head of Sendangagung Village, March 9, 2024).

This reveals a gender-structured transmission system in which female children are the primary recipients of craft knowledge through domestic socialization. Comparable kinship-transmission systems across Javanese batik communities, confirming this as a structural feature of coastal batik economies [36].

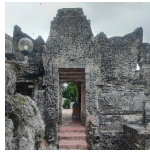
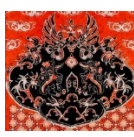
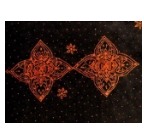
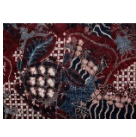
The demographic evidence in Figure 3 provides the most direct structural confirmation, both across the two villages and throughout the 2017-2023 period. Batik production consistently stands out as the largest livelihood category. The 2021 pandemic consequence is legible as a conjunctural fluctuation that did not alter the longue durée infrastructural foundation, this demonstrates the structural resilience social in batik sendang.

### 3.3. Cultural Superstructure: Motif Symbolism, Islamic Aesthetics, and Ideological Legitimation of Batik Sendang

Having established the material infrastructure and social structure, like section documents the superstructural formations, the motif system, Islamic aesthetic values, and communal ideological narratives that legitimate and reproduce the tradition at the level of culture and ideology.

Field documentation reveals that Sendang batik motifs systematically adapt formal elements from Coastal flora-fauna, the emblem of Lamongan City, and the architectural relief carvings of the Sunan Sendang Tomb Complex and the Leng Songo well structure, two sacred Islamic heritage sites embedded within the community's landscape (see tabel 2). This adaptation embeds the ideological framework of the Sendang community into their primary material product. Batik is no longer merely a craft, it has become an ecological identity reflecting their status as a coastal community, a cultural identity distinctive to Sendang Lamongan, and a religious identity rooted in Islamic teachings. Distinctive Hindu-Buddhist motifs are clearly evident, yet they have been stylized to align with Islamic values by omitting depictions of living beings that conflict with Islamic teachings. Among the six selected motifs, motifs 2 and 3 are traditional designs that have long been known and passed down, whereas motifs 1, 4, 5, and 6 are new designs that emerged and evolved between 2018 and 2025. The evolution of these motifs reflects the adaptability of the Sendang batik community in responding to shifting market tastes without abandoning their traditional roots.

**Table 2.** Superstructural Expression in Batik Sendang: Motif inspirations from sacred sites and their formal batik expression  
[Source: Angga Fajar R, 2024-2025]

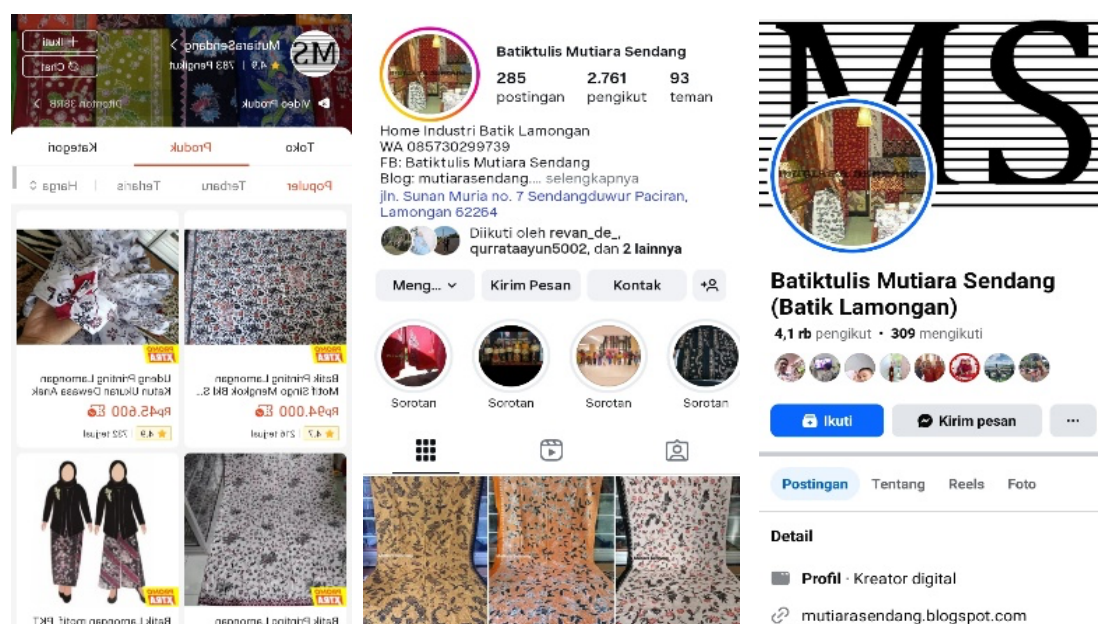
| Indicatori                  | Motif 1                                                                             | Motif 2                                                                             | Motif 3                                                                             | Motif 4                                                                              | Motif 5                                                                               | Motif 6                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Form Inspiration Basis      |  |  |  |  |  |  |
| Batik Motif Form Expression |  |  |  |  |  |  |
| Name of the motif           | Winged Paduraksa Gate                                                               | Peacock                                                                             | Lotus                                                                               | Mythical Lion or Winged Lion                                                         | Four-Petaled Flower                                                                   | Leng Songo Well                                                                       |

Ratnadewi et al. demonstrate a connection between Islamic values characteristic of pesantren and the visual forms found in Batang batik [37]. Specifically, these religious teachings and values have influenced the emergence of geometric and floral motifs. A similar phenomenon is observed in Sendang batik; the community's relatively uniform Islamic identity shapes batik motifs that reflect ideological orientations and meanings intertwined with Sendang's physical landscape, namely the Sunan Sendang Duwur tomb complex and its associated artifacts as well as the local community's social structure (predominantly Muslim). Unlike Lasem batik [19], characterized by ethnic diversity, or Cirebon batik [15], with its multicultural background, Sendang batik reflects a more uniform identity, resulting in more cohesive visual patterns.

Mrs. Mutrika's assessment of hand-drawn batik as a "*unique, distinctive, and artistic*" creation demonstrates not only her appreciation for its beauty but also reinforces specific social standings within the production process. This recognition of the high value of hand-drawn batik elevates senior female artisans who possess greater skill and experience to a more esteemed status or a higher position relative to other workers.

At the evenementielle level, Sendang batik's superstructure has adapted to contemporary market conditions through digital platform integration (see figure 5). Ms. Rif'ah's testimony that "*we promote batik through online stores, social media platforms, and websites*" represents a surface-level representational adaptation leaving surface-level representational relate to infrastructural and structural aspects.

Digital technology and the internet used by batik artisans, entrepreneurs, and traders in production and marketing, reflects the transformation of modern cultural infrastructure, struktur, and infrastruktur. The use of stamping and printing (screen printing) tools has become a production strategy to meet market demand, resulting in faster production times, lower costs, standardized results, affordable prices, absorb and enhance workforce specialization. This technological adaptation represents a further manifestation of material rationality in facing the challenges of the global market.



**Figure 5.** Digital Superstructure of Batik Sendang: Instagram, Facebook, and Shopee Marketplace Event-Based Adaptation Proceeds Without Causing Structural Disruptions To The Production System [Source: <https://id.shp.ee>; <https://www.instagram.com>; and <https://www.facebook.com>, 2025]

Furthermore, the use of digital media has also become a new marketing strategy to expand market reach, increase profits, and ensure the sustainability of the creative economy. Sendang batik artisans, entrepreneurs, and traders believe that digital media platforms and online stores can boost sales of Sendang batik, both domestically and internationally. According to Mrs. Mutrika, Mrs. Indah, Mrs. Rif'ah, and Mr. Trubus, who are Sendang batik craftsmen, entrepreneurs, and traders, the presence of digital technology and the internet utilized by Sendang batik agents has implications for increasing batik sales. In one month, Sendang batik craftsmen, entrepreneurs, and traders can sell 30 to 500 pieces of Sendang batik cloth. Nearly all entrepreneurs and traders in Sedang batik do not record their batik sales in detail on a monthly or even annual basis. However, online sales through online

stores can still be tracked. Below is data on Sendang batik sales from one randomly selected batik entrepreneur from 2023 to 2025, as detected on the Shopee app (see table 3).

**Table 3.** Selling Sendang Batik Using an Online Store  
[Source: Shopee application, 2023-2025]

| Month     | 2023 | 2024 | 2025 |
|-----------|------|------|------|
| January   | 5    | 25   | 18   |
| February  | 6    | 28   | 7    |
| March     | 3    | 13   | 14   |
| April     | 1    | 13   | 38   |
| May       | 9    | 48   | 47   |
| June      | 11   | 17   | 38   |
| July      | 11   | 23   | 42   |
| August    | 16   | 40   | 47   |
| September | 24   | 34   | 29   |
| October   | 27   | 19   | 26   |
| November  | 23   | 17   | 25   |
| December  | 14   | 16   | 20   |
| Total     | 150  | 293  | 351  |

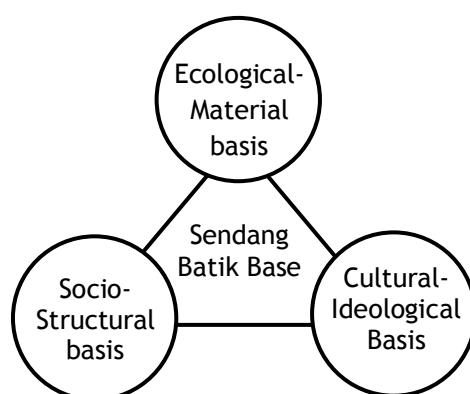
It should be emphasized that monthly batik sales can exceed this figure, as direct sales and social media are still available. Table 3 shows that the digital marketing strategy (Shopee app) showed a 95.3% increase in 2024 and a 19.8% increase in 2025. This suggests that the presence of digital media has boosted sales of Sendang batik.

### ***3.4. Discussion: The Integrated Cultural-Historical Framework and Its Implications for Coastal Batik Studies***

#### ***3.4.1. Synthesis: The Braudel-Harris Matrix Applied to Sendang***

The socio-cultural foundations underpinning the growth and development of Sendang batik over the centuries are shaped by three interconnected bases. First is the ecological-material basis (the *longue duree*-infrastructural level). The limestone hilly terrain of the Sendang region limited opportunities for the local community to develop agrarian or maritime livelihoods, thereby structurally establishing batik craftsmanship as the primary economic strategy. This situation can be traced back to the 15<sup>th</sup> and 16<sup>th</sup> centuries on the north coast of Java, specifically the coast of Lamongan. Its maritime economic infrastructure appears to be taking shape. Second is the social-structural basis (the *conjuncture*-structural). The transmission of batik skills based on kinship ties continues today; observations reveal that this transfer has spanned four generations. A social structure of batik agents remains intact, with the emergence of specialized roles among the artisans themselves. An institutionalized hierarchy of agents comprising artisans, entrepreneurs, and traders persists. Furthermore, institutional associations (such as Sinande and ABSELA) have emerged, reproducing the socio-economic relations of the batik industry across decades. This established social-structural framework has enabled sustainable growth, even in the face of conjunctural disruptions, such as the economic contraction caused by the 2021 pandemic. Third is the cultural-ideological basis (the *evenementielle* or superstructural). A systematic derivation of Sendang batik motifs has occurred, drawing inspiration from the sacred Islamic architecture of the Sunan Sendang Tomb Complex and the Leng Songo well. The community's appreciation of hand-drawn batik as the pinnacle of aesthetic expression has fostered a symbolic system that legitimizes and reproduces the batik tradition in terms of meaning and identity. It is the dialectical interaction of these three bases that has allowed a batik culture

to flourish in the Sendang region, enabling the community to develop and sustain a tradition of proven historical significance spanning at least five centuries (see figure 6).



**Figure 6.** Sendang Batik Base  
[Source: Author's interpretation, 2024]

These three foundations form a cumulative argument that can now be articulated in an integrated manner. The limestone hill ecology of Sendang constitutes both an infrastructure and a *longue duree* structural condition that has persisted for centuries. Kinship inheritance systems, hierarchies of agency, and institutional associations form the social structure at the level of *conjoncture*. Systems of motifs, Islamic aesthetic legitimization, and digital marketing adaptations constitute the superstructure at the *evenementielle* (event-based) level. Table 4 formalizes this synthesis.

**Table 4.** Coherence Matrix: Braudel-Harris Integration in the Analysis of Sendang Batik Lamongan  
[Source: Synthesis of field data and theoretical framework, 2026]

| Braudel Layer            | Harris Category | Key Findings                                                                                                                                                                                                                                |
|--------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Longue durée (centuries) | Infrastructure  | Limestone terrain conditions limit opportunities for agriculture and fisheries; batik serves as the primary source of livelihood and has been a commercial commodity since the 16th century.                                                |
| Conjoncture (decades)    | Structure       | Kinship-based transmission (spanning over four generations); the presence of agents, specific roles, and hierarchies within the batik trade; the emergence of the Sinande and ABSELA associations; and resilience during the 2021 pandemic. |
| Événementielle (current) | Superstructure  | Transitional Islamic-inspired motifs adapted from the Sunan Sendang and Leng Songo tombs; and the adoption of digital marketing without structural disruption.                                                                              |
| Integration of all three | Synthesis       | Integration of the Braudel-Harris approach allows for directly addressing the Research Question (RQ) and reconciling contradictions between symbolic and socio-economic analyses.                                                           |

The integration of Braudel and Harris yields findings that neither framework could produce independently. Braudel's *longue duree* alone can explain the persistence of tradition but fails to reveal the internal hierarchy of forces driving that persistence. Conversely, Harris's cultural materialism alone can identify material causality but lacks the temporal depth to

distinguish structural continuity from conjunctural fluctuations. Integrating the two yields three simultaneous explanatory outcomes: the emergence of the batik culture, its persistence, and its distinctive characteristics. The ecological and economic conditions of the maritime region gave rise to cultural formations that cannot be explained through event-level analysis alone [38].

### ***3.4.2. Reconciling Contradictions in Existing Scholarship***

There is apparent contradiction between symbolic-semiotic studies [15], [17] and socio-economic studies [18], [39] can be resolved through the Braudel-Harris framework and its logic of hierarchical causality. Symbolic studies accurately describe the superstructural layer but are causally incomplete, as they treat that layer as self-explanatory. Conversely, socio-economic studies identify tangible structural dynamics but operate without long-term historical depth.

Findings regarding Sendang batik provide concrete evidence of this. The distinctive motifs influenced by Islamic-transitional values found in Sendang batik are not merely aesthetic choices or reflections of religious identity, rather they emerged from the specific geographical, social, cultural, and economic realities of the Sendang region. The resilience of the Sendang batik community in the face of various pressures, including the 2021 pandemic demonstrates that batik production is deeply rooted in the area, serving as a vital livelihood and remaining a dominant tradition passed down through generations.

Comparisons with other batik centers along Java's north coast further reinforce this conclusion. Lasem batik features a blend of Javanese and Chinese motifs, reflecting Lasem's long history as a port where merchants of diverse ethnicities converged. Pekalongan batik is characterized by competition and power struggles between groups, a result of the city historically being dominated by merchant capital from varied backgrounds. Ciwaringin batik exhibits an aesthetic distinct to pesantren culture, as the community that created it centers its social life around Islamic institutions. Ultimately, the unique patterns found in each region evolve into a local identity that reflects the social, economic, and historical conditions of the communities that produced them.

### ***3.4.3. Theoretical and Practical Implications***

Theoretically, the most significant contribution of this study is synthesis of Braudel's and Harris's ideas serves as a powerful analytical tool for understanding the emergence and persistence of a material culture tradition in Southeast Asia maritime. Febriani et al. have illustrated how specific narratives regarding batik and Indonesia shaped and sustained in the public consciousness amidst an evolving history have evolved into the long, complex saga of Indonesian batik's rise to the status of a national symbol. Batik's current position in Indonesian society is the outcome of a process that began in the late 19<sup>th</sup> century but is rooted in events from much earlier periods [40]. This study complements that perspective by delving deeper, tracing the material conditions and historical background of Java's north coast specifically within a single small coastal community. In short, the concept of historical-cultural materialism combining Braudel's historical approach with Harris's analysis of material conditions proves capable of resolving the contradiction between studies that have traditionally viewed batik either through a symbolic-cultural lens or a socio-economic one.

Regarding batik education, these findings support a curricular approach that goes beyond merely teaching batik techniques or the aesthetic beauty of motifs. Batik education truly serves the purpose of cultural preservation only when it is rooted in the tangible context of the community that gave rise to it [41]. Based on these findings, the batik curriculum for Sendang should begin with a fundamental question: why have the people of Sendang been

producing batik for centuries? Addressing this question fosters a much deeper understanding of batik not merely as a craft, but as a form of adaptation to ecological and material conditions, a way to capitalize on the thriving batik trade along Java's north coast, and a means of sustaining the local community across generations.

In the realm of preservation policy, these findings urge the Lamongan local government to safeguard the conditions that have kept this tradition alive such as the family-based system of skill transmission, the operational chain linking artisans, entrepreneurs, and traders, and easy access to raw materials like canting tools, wax, and dyes. Effective batik preservation must take into account the entire socio-economic ecosystem that sustains it [42], [43].

#### 4. CONCLUSION

The Sendang Lamongan batik tradition emerged from a long-standing dialectic among ecological-material conditions, socio-historical structures, and cultural value systems that have mutually reinforced one another for over five centuries. By integrating Braudel's *longue durée* perspective with Harris's cultural materialism, the study identifies the region's limestone hills and the the strong flow of maritime trade as primary drivers behind the emergence of this batik culture as a community economic strategy. This tradition was subsequently reproduced across generations through kinship-based transmission, hierarchies of production agents, and symbolic legitimation rooted in the Islamic values characteristic of Java's north coast transition zone. These findings are significant for broader scholarship, as they offer "cultural-historical materialism" as an integrated analytical framework for tracing phenomena back to their long-term material and historical roots. This approach serves as a relevant analytical model for strengthening batik education curricula, formulating infrastructure-based cultural preservation policies, and developing creative economies grounded in local contexts.

The study is subject to certain limitations, including a geographical scope restricted to two villages, a scarcity of archival data for precise periodization, and a qualitative approach that did not yield quantitative measurements of batik's economic contribution. Future research should expand the scope to other coastal batik centers such as the Kerek and Lasem regions to comparatively test the applicability of the cultural-historical materialism framework. Additionally, integrating quantitative economic data would strengthen the relevance of preservation policies within the context of Indonesia's creative economy development agenda, which is rooted in local cultural heritage.

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