



The Value of Disaster Mitigation in Nyai Roro Kidul Folklore Through Geomythological Analysis

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Citation: Arwansyah, Y. B., Suyitno, S., & Winarni, R. (2025). The value of disaster mitigation in Nyai Roro Kidul folklore through geomythological analysis. *Herança*, 8(1), 177-189. <https://doi.org/10.52152/heranca.v8i1/1000>

ARTICLE INFO

Received:

ABSTRACT

This study explores the value of disaster mitigation in the Nyai Roro Kidul folklore through geomythological analysis. Nyai Roro Kidul, known as the Queen of the Southern Sea in Javanese mythology, is often associated with natural phenomena and disasters along the southern coast of Java Island. This qualitative research aims to uncover how elements of this folklore can be interpreted as disaster mitigation messages relevant to modern society. The methodology used is geomythological analysis, which combines geographic approaches with mythological studies to understand how folklore reflects and responds to geological and meteorological phenomena. Data were collected through in-depth interviews with folklore experts, geologists, and local communities knowledgeable about this myth. Additionally, textual analysis was conducted on various versions of the Nyai Roro Kidul story prevalent in the community. The results show that the Nyai Roro Kidul folklore contains many elements that can be interpreted as disaster mitigation guidelines, such as warnings about the dangers of tsunamis and landslides. These messages are embedded in the myth's narrative and symbolism, indicating local awareness of natural hazards and ways to address them. This study concludes that folklore holds significant potential as an educational tool for disaster mitigation, given its proximity and relevance to the community's daily life. The geomythological approach not only enriches understanding of local culture but also offers new perspectives in community-based disaster mitigation strategies.

Keywords: Folklore; Geomythology; Values; Disaster Mitigation.

INTRODUCTION

Folklore is an ancestral heritage that carries profound wisdom and meaning within it. Folklore, as part of oral literature, can be found almost everywhere in the world as a cultural product (Kasim & Pardosi, 2000). Many folklore stories are starting to vanish due to the lack of successor generations. Folklore comes in various forms such as myths, fairy tales, and legends (Danandjaja, 2007). Despite being anonymous, folklore serves a profound function behind its emergence.

Natural events such as natural disasters are one of the reasons for the emergence of folklore in society. Folklore emerges as a response and means for society to adapt in dealing with natural disasters. Various responses are then narrated between generations as a form of adaptation to their living environment. One adaptation is about the presence of geological or terrestrial elements in folklore to provide guidance for future generations in facing natural disasters. Adaptations are manifested in the form of commands and prohibitions through stories that evolve within communities with high disaster potential. Folklore plays a role as a means for past societies to adapt to life and befriend nature (Brunvand, 1968).

The relationship between folklore and geological phenomena is studied in the realm of geomythology. Geomythology research analyzes how geological events are recorded and understood in the oral traditions of communities. This forms the basis for geomythological research and provides an opportunity to understand

places with potential natural disasters (Hamacher, 2016; Vitaliano, 2007). Geomythology delves into the understanding and experiences of past societies in confronting geological phenomena as reflected in their culture, stories, and behaviors, specifically focusing on the communities in the Special Region of Yogyakarta.

This study is set in the Special Region of Yogyakarta because it has many folklore stories still told and used by its people as guidance to harmonize with nature, manifested through a series of traditional rituals and beliefs. The ritual and belief are subsequently passed down through generations, accompanied by stories that form the basis of their origin. Inherited folklore forms the basis of knowledge and attitudes of society to navigate life. This concept is important to be examined in-depth in research about society's understanding of the values in folklore in the Special Region of Yogyakarta. The values referred to are the relationship between folklore and geological phenomena and the depiction of past societies' responses to these events.

Moreover, the selection of the Special Region of Yogyakarta as the research location is due to its high vulnerability to disasters. The northern part of the Special Region of Yogyakarta directly borders Java's most active volcano, Mount Merapi. Mount Merapi is known as the most active volcano on Java Island with a rest period of less than eight years, approximately 2 to 7 years (Minanto & Ningsih, 2018). Since 1548, the mountain has erupted more than 60 times, one significant eruption occurred in 2006, which caused volcanic ash rain reaching Magelang City, Central Java. In addition, the Merapi eruption also occurred in 2010 from October 26th to November 5th, resulting in the death of Mbah Maridjan, the caretaker of Merapi at that time (Malthuf & Reza, 2022).

Meanwhile, the eastern side of this region is prone to seismic activity due to the presence of the Indo-Australian Plate interacting with the Eurasian Plate. Additionally, this area is situated within the Pacific Ring of Fire and the subduction zone, making it susceptible to tectonic earthquakes (Ayuningtyas, Ilma, & Yudha, 2018). Tectonic earthquakes are also potentially occurring due to the presence of the Opak fault and the Progo plate on the eastern and western sides of the Special Region of Yogyakarta. One example of an earthquake event is the 5.9 magnitude earthquake on May 27, 2006, at 05:55 AM WIB which struck Yogyakarta and the southern part of Central Java according to data from the Bantul Regional Disaster Management Agency (BPBD), resulting in 4,143 fatalities in the Bantul region, 71,763 houses reported damaged overall, with 71,372 experiencing severe damage and 66,359 experiencing minor damage. The total number of casualties due to earthquakes in the Special Region of Yogyakarta (DIY) and the southern part of Central Java reached more than 5,782 people, while more than 26,299 people suffered serious and minor injuries. More than 390,077 houses were reported collapsed due to the impact of the earthquake (Zulfiar & Zai, 2021; Widyawarman & Fauzi, 2020).

The relationship between natural phenomena and past stories on the south coast of Java is written in a study (Harris et al., 2019) about the discovery of sand layers in the Pangandaran region indicating that there was an ancient tsunami. Folklore and historical records are used as tools to study and trace the traces of this ancient tsunami. The emerging story is the myth of Nyai Roro Kidul, believed by the community as the leader of the south coast of Java. The myth tells about Panembahan Senopati who meditated on the south coast to seek help from Nyai Roro Kidul to enlarge the Mataram Kingdom, although by lineage, Panembahan Senopati was not a direct descendant of the king. After finishing the meditation, high waves emerged from the south sea of Java. This event coincides with what is written in a book entitled *Babad Tanah Jawi* and in a poem or song in *Serat Sri Nata*.

This study aims to explore the disaster mitigation values embedded in the Nyai Roro Kidul folklore through geomythological analysis, focusing on how elements within the folklore reflect local communities' understanding of disaster risks. By analyzing the relationship between the Nyai Roro Kidul myth and the geographical and geological conditions of the region, this research seeks to evaluate the relevance of traditional values in contemporary disaster mitigation strategies. Additionally, this study endeavors to connect local wisdom with modern scientific knowledge to develop a more holistic approach to disaster mitigation. The findings are expected to provide useful recommendations for authorities and communities in designing mitigation strategies that integrate traditional cultural values.

Objectives

Based on the facts above, research in the field of geomythology, especially in disaster-prone areas such as Yogyakarta, Indonesia, is crucial and should be conducted promptly. Researchers see the potential in utilizing folklore in the Special Region of Yogyakarta as a means to instill disaster mitigation values based on past knowledge and experiences.

LITERATURE REVIEW

Folklore

Folklore is one form of literature categorized within oral literature. Oral literature is defined as literary works that are disseminated orally from one generation to another (Brunvand, 1968). Folklore is a cultural manifestation passed down orally or through generational traditions (Taylor, 2003). Oral literature generally emerges as a response and product of thought within societal systems (Kasim & Pardosi, 2000). Folktales are cultural legacies passed down by ancestors as lessons in experiences and the meaning of life (Olajide & Billy, 2010).

Folklore, as cultural heritage, is used as a means to convey moral messages. Moral messages conveyed in folktales can be utilized to impart lessons about life (Zolotova, 2017). Folktales are a type of story that continues to live and evolve from one generation to the next within a society. They are called folktales because they grow and develop within communities, where all layers of society are familiar with them (Djamaris, 1993).

Geomythology

Geomythology is a branch of earth science that focuses on past Earth phenomena through an interdisciplinary approach relying on myths or legends as sources of information. Geomythology is the study of the connection between ancient myths or legends and geological events or natural phenomena. Geomythology seeks to understand how folklore and myths may reflect or explain geological occurrences from the past, such as volcanic eruptions, earthquakes, or tsunamis (Vitaliano, 2007). Therefore, myths and legends often have correlations with geological events in the past (Hamacher & Goldsmith, 2013).

Geomythology seeks to understand the relationship between natural phenomena that occurred in the past and the mythological or legendary narratives that developed within human culture (Eko Yulianto, Fauzi Kusmayanto, Nandang Supriyatna, & Muhammad Dirhamsyah, 2010). The emergence and existence of myths understood through geomythology serve as evidence that ancestors in the past had a particular interest in geological events (Hamacher & Norris, 2010). The limited understanding of geological or earth sciences at that time led ancestors to interpret natural and geological events based on their existing knowledge and experiences, making it reasonably understandable at that time (Appleby-Arnold, Brockdorff, Jakovljević, & Zdravković, 2018).

Geomythology brings together elements from geological science and cultural studies, allowing us to better understand how human knowledge of the natural environment is influenced and recorded in myths and legends (Unjah & Halim, 2017; Vitaliano, 2007). Geomythology is the study of myths associated with natural events (Mayor, 2004). It integrates geological and cultural sciences to deepen our understanding of the Earth's natural history and its influence on humans (Tepper, 1999; Walsh, Brown, Gourley, & Scaife, 2017).

Disaster Mitigation

Disaster mitigation comprises a series of efforts to reduce the risks and impacts of disasters, either through enhancing physical capabilities or raising awareness and improving capacities to address natural disaster threats (Maskrey, 1989). Mitigation can also be understood as the endeavor to diminish the risks and impacts of disasters through regulations, policies, and other documents governing communities in preparing for disaster response (Christopher, Liljelund, & Mitchell, 2001; Newport & Jawahar, 2001; Wahyuningtyas, Tanjung, Idris, & Dewi, 2019). Mitigation encompasses protective measures that can be taken by preparing oneself and other essential elements before a disaster occurs, conducting analyses and measurements of disaster potential hazards, and disaster prevention and mitigation, including rescue, rehabilitation, counseling, and relocation (El-Masri & Tipple, 2002; Oe & Kawakami, 2021; Weichselgartner, 2001). The attitude of responsiveness and disaster mitigation is crucial for every sector of society to comprehend as part of educating all layers about readiness to face natural disasters (Kastolani & Mainaki, 2018). Public understanding of disaster mitigation varies significantly across different regions. This variation arises because the concept of mitigation is built upon inherited experience and traditional knowledge. In this context, mitigation is understood as the community's efforts to protect themselves from events or periods through methods they comprehend. Additionally, mitigation in this sense encompasses both preventive measures and suggestions (Abdurahman & Kadarisman, 2022; Lancini, 2020).

METHODOLOGY

The background of this research is set in the Special Region of Yogyakarta. The selection of the Special Region of Yogyakarta as the research background is due to its abundance of folktales still used by its community to harmonize with nature through a series of traditional rituals and beliefs. These tales also contain commands, prohibitions, advice, and so on. The folktales passed down serve as the basis of knowledge and attitudes for the

community to navigate life. This concept is important to delve into in-depth research on the community's understanding of the values within folktales in Yogyakarta. The values in question are related to the relationship between folktales and natural phenomena and the depiction of past societies' responses to these events. This research was conducted for four months, starting from December 2023 to March 2024. In detail, [Figure 1](#) outlines the schedule for the implementation of this research.

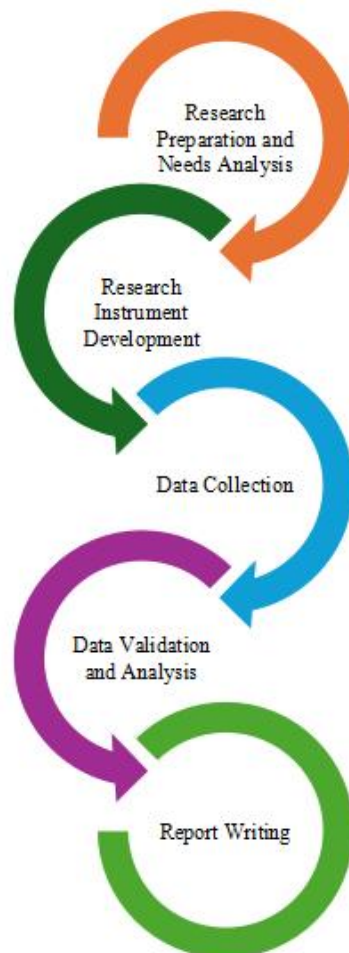


Figure 1. Research Stages

The research method employed in this study is qualitative. According to Creswell (2009), qualitative research is a type of inquiry that explores and comprehends the meanings of a number of individuals or groups related to social issues. Qualitative research, in general, can be applied in the study of various aspects of societal life, history, human behavior, concepts or phenomena, as well as other social issues. The approach used in this research is an anthropo-literary perspective that links literature with cultural contexts. Although facts can serve as data sources, not all facts are considered data in the context of literary anthropology research.

In this study, the strategy employed is an ethnographic strategy using an emic approach. This approach refers to the analysis of functions and meanings in folktales in Yogyakarta from the perspective of the community as owners and believers of these stories. To ensure the accuracy of the data and information obtained, the researcher conducted in-depth interviews with practitioners who have deep knowledge and experience related to the local culture (Spradley, 2007). This strategy is known as ethnography or participatory observation, which essentially allows researchers to gain a deeper understanding of language and its relationship with culture as a whole by observing the use of language in real social contexts (Sumara, 2002).

The data for this research consists of folktales of Nyai Roro Kidul from the Special Region of Yogyakarta. Folktales were obtained based on oral stories from historians, writers, and cultural experts in Yogyakarta. These oral storytelling data are primary data in this research. Additionally, there are secondary data such as books about the past tales of Java Island, particularly in Yogyakarta, such as *Babad Tanah Jawi* (Abimanyu, 2013) and *The History of Java* (Raffles, 2019), as reference sources to align the context of past events. The data sources for this research include Yogyakarta historians, Javanese cultural experts, caretakers of Mount Merapi and Parangkusumo Beach appointed by the Yogyakarta Palace, Javanese writers, and several members of the general

public around the research location.

Data for this research were obtained through in-depth interviews with informants consisting of history experts, Javanese cultural experts, and members of the general public knowledgeable about folktales in Yogyakarta. This technique was chosen to obtain the accuracy of the folktale version obtained to be combined with the written version in historical documents (Seliger & Shohamy, 2012). Interviews were conducted using a structured technique where the researcher prepared a list of questions to obtain the expected data (Miles & Huberman, 2014; Ryan & Bernard, 2012). The entire process and results of the interviews in this study have been approved by all informants for publication as a contribution to the advancement of scientific knowledge.

Data validity was ensured through triangulation technique of data and sources (P. Fusch, Fusch, & Ness, 2018). Source triangulation was conducted by comparing interview results among several informants. Versions of the story among informants may potentially differ from one another, thus requiring a comparison of story versions to obtain the most relevant version. Meanwhile, data triangulation was conducted by comparing interview results among several informants with the results of historical document analysis about folktales in Yogyakarta. Versions of the story from interviews may differ in some parts from historical documents about folktales in Yogyakarta, thus requiring a process of integration between interview results and historical documents (Merriam, 2013; Miles & Huberman, 2014).

RESULTS

The Story of *Nyai Roro Kidul* is well-known among the people of Yogyakarta and the majority of Indonesian society. Folklore of *Nyai Roro Kidul* has evolved and has many versions in various regions in southern Java, from Pelabuhan Ratu in West Java to Parangkusumo and Parangtritis in Yogyakarta. In Yogyakarta, Nyai Roro Kidul is believed to be a figure who holds power over the entire southern coast of Yogyakarta, specifically in Parangkusumo and Parangtritis. The people in Yogyakarta, especially those in coastal areas and near the royal palace, still carry out various rituals and traditions related to Nyai Roro Kidul. Various myths about the existence of Nyai Roro Kidul still color the lives of the people and are also used as advice for newcomers or tourists visiting Yogyakarta, especially in Parangkusumo and Parangtritis Beaches, although these myths also apply along the entire southern coast of Yogyakarta in the regions of Bantul, Kulon Progo, and Gunung Kidul.

Mitigation Values through the Prohibition of Wearing Green Clothes on the South Coast of Java

The prohibition of wearing green clothes can be interpreted as one form of mitigation value. This value is packaged in the form of mythology passed down from generation to generation through the folklore of Nyai Roro Kidul. This is as expressed by informant Febri Laksito, a resident of the southern coast of Yogyakarta, in the following interview excerpt.

...when it comes to wearing green clothes, it's believed to be a tribute to Nyai Roro Kidul. Even though logically, wearing green clothes is prohibited because the color is similar to the sea floor, so if you get swept away by waves, it's difficult to find (Interview FL - 2024).

In addition, another informant named Bahar Heru (BH) from the Indonesian Red Cross and the Regional Disaster Management Agency of Bantul Regency stated that the prohibition of wearing green clothes is actually a form of disaster mitigation conveyed by our ancestors through folklore or myths.

That (the prohibition of wearing green clothes) is a form of mitigation, prevention, which falls within the realm of disaster mitigation. However, our ancestors packaged it cleverly because in the past, people still had semi-animistic beliefs, many believed in myths, so these prohibitions were packaged in those myths (Interview BH - 2024).

This is associated with the color green, which is Nyi Roro Kidul's favorite color. According to Robson (2003) in their book "The Kraton," it is stated that along the South Coast of Java, no one should wear green clothes. The myth suggests that someone wearing green clothes may be considered one of Nyi Roro Kidul's soldiers or slaves."

Mitigation Values through the Cultivation of Ecological, Moral, and Ethical Values

The story of Nyai Roro Kidul encompasses moral messages such as social and ecological ethics. The tale of Nyai Roro Kidul can be interpreted as a hope to strengthen moral and ethical values within society. This statement is reinforced by the results of an interview with the informant Wedana Surakso Jaladri (WSJ), a cultural expert and custodian of Parangkusumo Beach, Bantul, Special Region of Yogyakarta. Here is a quote from the interview with WSJ:

From the story of Nyai Roro Kidul, we can draw lessons related to morality, ethics, manners, or as

Javanese people call it, 'empan papan.' For example, if people are prohibited from wearing green clothes when going to the South Coast, they comply, which is an example of moral behavior. The story also conveys that Nyai Roro Kidul was expelled from the kingdom because of her stepmother; from this, we can learn that the morals of her stepmother are not good (Interview WSJ - 2024).

Based on the interview excerpt above, it can be inferred that the folklore of Nyai Roro Kidul serves to reinforce moral and ethical values. WSJ also mentioned that the story of Nyai Roro Kidul contains moral and ethical values that can serve as guidelines for people's behavior wherever they are.

The folklore of Nyai Roro Kidul, in the context of Javanese culture and tradition, can also function as a tool for the affirmation of social institutions or the affirmation of certain social norms and rules. Institutions are a set of norms, values, and rules that regulate the behavior of society in a community. The folklore of Nyai Roro Kidul reflects social hierarchy and power structures within society. There are elements that highlight differences in status or specific roles in social relationships, and the story of Nyai Roro Kidul can serve as a means to preserve or strengthen this hierarchy. This statement aligns with the opinion of Bambang Purwanto (BP), a scholar from Gadjah Mada University, in the following interview excerpt:

This story has evolved within Javanese society, especially along the southern coast for many years. It symbolizes the strength of Nyai Roro Kidul as the ruler of the South Coast. Supported by accompanying stories such as the existence of troops, chariots, and other myths, which ultimately concluded that Nyai Roro Kidul is the most powerful figure there. From this, there is a social structure that we can learn from, that there is always someone considered more powerful than others and occupies hierarchical roles (Interview BP - 2024).

Based on this interview excerpt, it can be understood that the folklore of Nyai Roro Kidul can also highlight values of respect for ancestors or traditional leaders. This can strengthen their authority within society and evoke respect from younger generations.

Mitigation Values through the Implementation of Labuhan Ceremony at Parangkusumo Beach

The story of Nyai Roro Kidul strengthens the cultural identity of the local community. This can be interpreted as a hope to maintain and preserve local identity and beliefs. Additionally, Nyai Roro Kidul in folklore is considered to possess supernatural power. Through this perspective, the Nyai Roro Kidul story can be interpreted as a hope for protection from supernatural forces or as a symbol of hope for the presence of positive forces in life. This statement is also supported by the opinion of WSJ as the caretaker of Parangkusumo Beach. He stated that Nyai Roro Kidul has long been a symbol of power from the southern sea. Therefore, Javanese people who believe in this still make offerings and seek safety through specific rituals such as the Labuhan ceremony and meditation. This aligns with the following interview excerpt:

Kanjeng Ratu Kidul or Nyai Roro Kidul is a symbol of power from the southern sea or the South Coast. Many people still believe in it, some of them still perform certain rituals on the South Coast, especially here at Parangkusumo Beach, such as the Labuhan ceremony, meditation, and so on. The purpose is to seek blessings through specific offerings and requests for safety (Interview WSJ - 2023).

The statement is supported by the opinion of Bayu Ananto Wibowo, a historian from Yogyakarta, who states:

Most of the communities on the southern coast still highly respect the existence of Nyai Roro Kidul as a figure regarded as the ruler of the southern sea of Java. There are still rituals performed ranging from the Labuhan ceremony, seeking blessings, Kungkum, and many more (Interview BAW-2024).



Figure 2. Labuhan Ceremony at Parangkusumo Beach

The Javanese society of the past had a strong belief in myths as a legacy of animism. Therefore, every event that occurred in the past, including geological phenomena, was recorded and passed down in the form of literature. The literature referred to here is folklore in the form of myths, legends, and the like. This was done because people found it easier to understand and implement their understanding through stories (Figure 2).

The value that can be gained from these folktales serves as a means to prevent similar events that could cause more severe impacts. Through historical records, myths, and other literary works, they serve as guides and reminders for future generations on how to mitigate potential disasters that may occur later on.

DISCUSSION

The folklore of Nyai Roro Kidul has flourished on the southern coast of Java, particularly in Parangkusumo Yogyakarta. According to references obtained by researchers, Nyai Roro Kidul is a figure with authority in the coastal regions of Java. Nyi Roro Kidul is known by several names, including Ratu Laut Selatan (Queen of the Southern Sea) and Gusti Kanjeng Ratu Kidul. According to H. O. Utomo and Utomo (2012), in Javanese beliefs, Nyi Roro Kidul is considered a subordinate of Kanjeng Ratu Kidul.

The use of the terms Nyai, Gusti, and Kanjeng is a form of politeness in Javanese customs and traditions. Some communities also refer to her as Nyai Loro Kidul, which in certain contexts has a dual meaning, as its pronunciation can signify illness or suffering. Rara or Roro in Javanese means girl. According to Jordaan (1997), the transition from the ancient Javanese language "Roro" to the modern Javanese "Loro" indicates a shift in meaning from a beautiful girl to someone who suffers.

Furthermore, Javanese and Sundanese communities have stories about the origin of Nyi Roro Kidul. One version recorded by Meijboom (1924) in his book, "Javaansche Sagen Mythen en Legendes," tells of a beautiful princess from the Kingdom of Pajajaran named Dewi Kandita. Dewi Kandita fled to the southern sea after being bewitched, which caused her to suffer from a skin disease that made her dislike. When she jumped into the southern sea, her disease was healed, and her beauty returned. Eventually, she was crowned the Queen of the Southern Sea.

There are several versions of the Nyai Roro Kidul story as a ruler on the southern coast of Java, but they all share similarities, involving a princess who goes to the southern sea of Java and then disappears. As written by Bayan (1967) in his book titled "De Legende van Njai Loro Kidoel." Based on these various versions, many legends and community beliefs emerge. Nyai Roro Kidul is believed to be the leader of supernatural beings in the Southern Sea and will spread diseases to humans who behave badly. The people of Yogyakarta associate Nyai Roro Kidul with the areas of Parangkusumo Beach and Parangtritis as one of the areas ruled by Nyai Roro Kidul.

In line with this, folklore is crafted in such a way as to convey messages and/or historical records to future generations in a more easily accepted and practiced manner (Harris et al., 2019). According to the views of Javanese and Sundanese communities, Nyai Roro Kidul is considered a legendary spiritual leader in the southern sea region with an incredibly enchanting appearance. Many cultural and anthropological studies related to

Javanese and Sundanese communities indicate that the legend of Nyai Roro Kidul originates from animistic beliefs associated with the nature surrounding the Southern Sea of Java. The waves in the Southern Sea of Java instill fear and respect for nature, which is seen as the home of supernatural beings led by their queen, Nyi Roro Kidul.

Another statement from Ricklefs (2008) in *Sejarah Indonesia Modern 1200-2008* states that Panembahan Senopati, the first leader of the Mataram Kingdom, showed a strong dependence on Sunan Kalijaga and Nyai Roro Kidul, illustrating the complex relationship between the Mataram Kingdom, Islamic teachings, and traditional Javanese beliefs. Panembahan Senopati sought spiritual support from Nyai Roro Kidul, the goddess of the Southern Ocean, to obtain special protection for the Mataram noble family.

The geomythological elements in the folklore of Nyai Roro Kidul are linked to the historical geological event of a tsunami 400 years ago, coinciding with the establishment of the Yogyakarta Mataram Kingdom, thus the emergence of the geological phenomenon of a tsunami is associated with the symbol of blessing from Nyai Roro Kidul for Panembahan Senopati to become the King of Mataram. Folklore and historical records are used as tools to analyze and trace the footsteps of this ancient tsunami. The story that subsequently emerged is the myth of Nyai Roro Kidul, believed by the community to be the ruler of the coast on the southern shore of Java. The myth tells of Panembahan Senopati meditating on the southern coast of Java to seek the help of Nyai Roro Kidul to establish the Mataram Kingdom, even though, in terms of lineage, Panembahan Senopati is not a direct descendant of the king. After completing his meditation, high waves emerged from the southern sea of Java.

This event aligns with what is described in the *Babad Tanah Jawi* (Abimanyu, 2013), in which at that time the Mataram Kingdom was established by Muslims, and its first king was Panembahan Senopati. Furthermore, in the *Tembang Serat Sri Nata* in the *Babad Tanah Jawi* (Abimanyu, 2013), it is mentioned that there was a disaster of high waves, the water was hot, causing many living creatures to die. The *Serat Sri Nata* in the *Babad Tanah Jawi* (Abimanyu, 2013) also states that at that time the sky emitted thunderous sounds and darkened with lightning. Panembahan Senopati at that time was able to utilize these conditions as a sign that Nyai Roro Kidul seemingly blessed him to become king. Panembahan Senopati packaged this disaster as a myth passed down through generations for the sake of his political legitimacy (Table 1).

Serat Sri Nata

Kilat thathit abarungan
Panjunegur swara kagiri-giri
Narka yen kiyamat iku
Toya minggah ngawiyat
Apan kadya amor mina toyanipun
Semana datan winarna
Ratu kidul duk miyarsi
Lagya sare kanthi denta
Kagegeran manehe Sang Sung Dewi
Dene naga samya mlayu
Arsa minggah perdata
Ratu Kidul alon denira amuwus
Selawas sun durung mulat
Samodra pan dadi kisik
Dene panase kang toya
Anglir agni klangkung panasing warih
Mina sedaya pan lampus
Baya ari kiyamat.

[Babad Tanah Jawi (Abimanyu, 2013)]

Table 1. Translation of Serat Sri Nata

| Verse | Serat Sri Nata | Translation |
|-------|---------------------------------------|--------------------------------------|
| 1 | <i>Kilat thathit abarungan</i> | Lightning and thunder simultaneously |
| 2 | <i>Panjunegur swara kagiri-giri</i> | Its roar frightening |
| 3 | <i>Narka yen kiyamat iku</i> | Thinking it was doomsday |
| 4 | <i>Toya minggah ngawiyat</i> | Water rose to the sky |
| 5 | <i>Apan kadya amor mina toyanipun</i> | Even, if mixed with the water fish |
| 6 | <i>Semana datan winarna</i> | At that time it wasn't told |
| 7 | <i>Ratu kidul duk miyarsi</i> | Queen Kidul upon hearing it |

| Verse | Serat Sri Nata | Translation |
|-------|---|---|
| 8 | <i>Lagya sare kanthi denta</i> | Was sleeping on an ivory bed |
| 9 | <i>Kagegeran manehe Sang Sung Dewi</i> | The goddess's heart was troubled |
| 10 | <i>Dene naga samya mlayu</i> | Even the dragons all fled |
| 11 | <i>Arsa minggah perdata</i> | Wanting to rise to fight (?) |
| 12 | <i>Ratu Kidul alon denira amuwus</i> | Queen Kidul slowly said: |
| 13 | <i>Selawas sun durung mulat</i> | "Never have I witnessed, |
| 14 | <i>Samodra pan dadi kisik</i> | The ocean turning into a shore [beach]. |
| 15 | <i>Dene panase kang toya</i> | Even the heat of the water, |
| 16 | <i>Anglir agni klangkung panasing warih</i> | like fire, the water is so hot |
| 17 | <i>Mina sedaya pan lampus</i> | All fish die |
| 18 | <i>Baya ari kiyamat.</i> | Perhaps this is the day of judgment. |

The *Serat Sri Nata* in the *Babad Tanah Jawi* depicts a major disaster that occurred in the past on the southern coast of Java. Another piece of evidence supporting the historical record of a significant tsunami occurring on the southern coast of Java is found in the quote from *Tembang Dhandanggulo* in the *Babad Ing Sangkala* below (Table 2).

...nir buta iku
bumi kala wong Pajang kendhih
lungo tilar nagara
Adipatinipun
angungsi ing Giri Liman
ing Mataram angalih mring Karta singgih
nir tasik buta tunggal

[Babad Ing Sangkala (1738) in *Babad Tanah Jawi* (Abimanyu, 2013)]

Table 2. Translation of *Tembang Dhandanggulo*

| Verse | <i>Tembang Dhandanggulo</i> | Translation |
|-------|--|---|
| 1 | <i>...nir buta iku</i> | when it disappeared, it turned into the sea |
| 2 | <i>bumi kala wong Pajang kendhih</i> | the land of the Pajang people was defeated |
| 3 | <i>lungo tilar nagara</i> | they left their land |
| 4 | <i>Adipatinipun</i> | their Duke |
| 5 | <i>angungsi ing Giri Liman</i> | fled to Giri Liman |
| 6 | <i>ing Mataram angalih mring Karta singgih</i> | In Mataram, they moved to Karta |
| 7 | <i>nir tasik buta tunggal</i> | when 'everything disappeared, it all returned to the sea' |

Verse 26 of *Babad ing Sangkala* employs the phrases “nir buta iku bumi” and “nir tasik buta tunggal” to mark the defeat of the Pajang army in 1619. The Javanese people at that time associated this with the story of Nyai Roro Kidul, the ruler of the southern coast, whose arrival was signaled by waves crashing onto the shore.

Historian Reid (2012) posits that the phrases in this *babad* resemble the occurrence of ocean waves surging onto land during a tsunami. *Babad ing Sangkala* strengthens the possibility of a major tsunami event in 1618 on the southern coast of Java (Mataram), a central area in the development of Nyai Roro Kidul folklore. Reid also links the potential disaster of that year with findings by Indonesian Institute of Sciences (LIPI) researchers Eko Yulianto et al. (2010), who discovered evidence of a large tsunami in southern Java in the past. Eko, who conducted excavations in Pangandaran (West Java) and Cilacap (Central Java), found evidence of a massive tsunami deposit that struck the southern coast of Java around 400 years ago.

These research findings align with the study by Ichsan and Hanafiah (2020), which states that among coastal communities, the Batu Cinta pilgrimage complex at Cepuri Parangkusumo beach is considered a sacred site for rituals, believed to be where Nyai Roro Kidul and Panembahan Senopati met. This assertion demonstrates that folklore concerning the meeting of Nyai Roro Kidul and Panembahan Senopati is still believed by the community, with the location of their meeting being regarded as sacred.

The southern coast of Java remains a sacred location for some communities due to the Nyai Roro Kidul folklore. Some people still perform rituals as a form of "disaster prevention" on the southern coast. These rituals,

including meditation, sea offerings, and other ceremonies, aim to seek protection from unwanted events like tsunamis or other disasters. This is consistent with the research by Findayani, Utama, and Anwar (2020), which examined local wisdom and disaster mitigation among the coastal communities of Cilacap. The community believes in the existence of Nyai Roro Kidul as the ruler of the southern sea. This belief fosters behaviors that respect the marine environment, such as maintaining cleanliness, preserving ecosystems, and planting erosion-preventing vegetation. These behaviors indicate that the southern coastal communities of Java have adapted in the context of disaster mitigation.

Additionally, Dahlan and Suwarno (2022) reveal that the same practices are carried out by the Cilacap community as part of earthquake and tsunami disaster mitigation efforts. The community performs rituals to instill a sense of security. They also maintain the marine ecosystem and plant mangroves as an expression of environmental awareness, believing that by doing so, they prevent Nyai Roro Kidul, the ruler of the southern sea, from becoming angry and causing disasters in their area.

CONCLUSION

This research reveals that Nyai Roro Kidul folklore contains valuable disaster mitigation insights through geomythological analysis. This approach demonstrates that the folklore surrounding Nyai Roro Kidul serves not only as a cultural element but also as a tool for communicating and teaching disaster mitigation strategies to the community. Geomythological analysis identifies that myths related to Nyai Roro Kidul often focus on warnings about natural disaster hazards, such as tsunamis and floods. These stories function as reminders and guides for coastal communities to prepare for and respond to disaster threats effectively. The findings indicate that folklore, often regarded as part of local tradition and belief, has significant potential in disaster education and mitigation. Therefore, integrating cultural values into disaster mitigation policies can enhance community awareness and preparedness, thereby strengthening resilience against natural threats. The study recommends that disaster mitigation strategies should consider and utilize local wisdom, such as folklore, to achieve more effective and sustainable outcomes.

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ETHICAL DECLARATION

Conflict of interest: No declaration required. **Financing:** No reporting required. **Peer review:** Double anonymous peer review.