SAFEGUARDING CULTURAL HERITAGE SITE: COMPARATIVE STUDY FOR ESTABLISHING CONSERVATION INITIATIVES ON INDRAPATRA FORT, ACEH BESAR

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Abstract

The Indrapatra Fort cultural heritage site located in the coastal area of Aceh Besar, Indonesia is a relic of Hindu influence. The condition of the fort is decreasing, so that it has a negative impact on securing this cultural heritage site. The lack of a maintenance strategy, continued neglect, and insufficient preservation work by the relevant government conservation agencies have resulted in almost no conservation initiatives for the fort. This paper attempts to establish appropriate conservation initiatives for fort security. This was carried out based on a qualitative approach with a comparative study of local cultural heritage conservation initiatives at Borobudur Temple and Fort Rotterdam. Primary and secondary data were analyzed using descriptive qualitative methods, providing recommendations for initiatives to preserve Indrapatra Fort that could be implemented practically through tangible and intangible aspects. Tangible initiatives are the reconstruction of damaged fortification structures and elements with similar materials, combined with a sound maintenance strategy. Meanwhile, intangible initiatives include performing arts, annual festivals and providing guides.

Keywords: Cultural heritage site, fort, conservation initiatives, tangible, intangible

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INTRODUCTION

Indrapatra Fort, located in the Ujoeng Kareng Beach area, Ladong Village, Masjid Raya District, Aceh Besar Regency, is a legacy of the first Hindu period. According to historical records, the Lamuri kingdom built this fort in the 7th century as a place of worship and residence for the king and his family. After the arrival of Islam, specifically during the reign of Sultan Iskandar Muda, this fort was repurposed as a defense against Portuguese attacks. According to Anonymous (2018), Fort Indrapatra stands as a silent witness to Aceh's transition from the Hindu period to the heyday of Islam. However, Indrapatra Fort now only serves as a cultural heritage site.

According to Lasenda et al. (2022), conservation is important to protect the history of the area and restore the old, faded vitality. At Indrapatra fort there is not yet maintenance from related parties and a lack of preservation by the government, the existence of Indrapatra Fort has decreased, leaving this fort empty of visitors (Syafputri, 2012; Nursyafira et al., 2019). According to one resident of Ladong in Syafputri, the condition of the walls of Indrapatra Fort was left to be destroyed, and several forts were also damaged by the impact of the tidal wave and tsunami 2004. Despite the fact that Indrapatra Fort can be used for religious and educational tourism. The Aceh Besar DPRK's Deputy Chairperson also hopes that this cultural heritage site can be preserved yet again (Luwi, 2020).

Due to its location on the coast, the geographical location of Indrapatra Fort makes it a strategic location for tourists. Therefore, based on the description of the previous problem, this paper tries to determine the appropriate conservation initiatives for protecting the fort. Conservation is very important in the field of historic area preservation which aims to improve the physical and non-physical quality of the area (Eriza, 2009). The concept of site management will have a strong influence on tourist satisfaction and environmental issues (Latip et al., 2020). Adaptive reuse is a conservation method to prevent abandoned, dilapidated buildings and prevent further damage, both interior and exterior, but must consider the transformation of cultural heritage buildings and compliance with conservation regulations (Rani et al., 2017). The existence of proper excavation efforts at this historical monument can improve social, economic and physical conditions in the long term in accordance with the principles of a sustainable city and society.

LITERATURE REVIEW

Cultural Heritage Site and Conservation: Term Definition

In the Law of the Republic of Indonesia number 11 of 2010 it is stated that cultural heritage sites are cultural heritage objects as a result of human activities and evidence of the past that are on land and or in water. Conservation is an effort...
to protect buildings or the environment by regulating their use and directing their
development according to current and future needs to preserve their cultural
meaning (Roosevelt, in Brinkley & Holland, 2009, Sidharta & Budihardjo, 1989).

**The Emergence of Heritage Preservation**

Modern heritage conservation practices emerged in 19th century France, due to
the decay of old buildings from earlier eras. Conservation was pioneered by the
Inspector General of Historical Monuments, M. Viet, by basing the restoration
on the principles of Viollet le-Duc, emphasizing the importance of material,
artistry and aesthetic values. Every part that is dismantled must be replaced with
better materials, using superior engineering, but in the same style as when it was
built, with reference to the style that each building has (Viollet-le-Duc, 2007, pp.
79-81). The Burra Charter states that the definition of conservation can include
all maintenance activities and is appropriate to local circumstances. Kyle &
Walker (1996) in Alvares (2006) said the scope of conservation activities could
include preservation, restoration, reconstruction, adaptation and revitalization.

**Conservation Purposes**

According to Worthing and Bond in Kayan (2015), conservation aims to preserve
the meaning of a building, site or place by considering potential and future
development. Poinsett (2019) says that the preservation of historical objects is
usually carried out with the aim of (i) Education: Historical objects play an
important role in the learning process because they will give the current
generation a clear picture of the past, in the form of the physical, atmosphere and
spirit of the past; (ii) Recreation: Visiting artifacts of the past can be fun while
understanding how ancient people created different environments; (iii)
Inspiration: Helping to preserve our connection with the past; and (iv) Economy:
Initiatives to preserve old buildings by reusing them, with the potential to develop
into a sustainable tourism economy.

**Conservation Theory**

There are two well-known theories related to conservation, namely the theory
from Ruskin & Morris (1877) which states "Conserve as found", which means
that every heritage building must be stored and maintained as it was found, so
that there cannot be the slightest change. Le-Duc (2007) opposes this statement
and says something different, namely "Reinstate old buildings in their best
condition", which means conservation is restoring heritage buildings in their best
condition (caring for, maintaining, reconstructing and replacing materials with
those that tend to be similar). Heritage is divided into two perspectives, such as:
West (Europe): Tangible
Traditionally, in Europe, inheritance is defined as something tangible. It has been argued that European views of architecture influenced understandings of 19th century heritage (Byrne, 1991; Harvey, 2001; Smith, 2006). According to critics, inheritance is also a cultural process that is manifested to remember the past and form an identity. Smith (2006) claims that architecture is not an inheritance, but the activities and processes that occur around it.

Non-West (Asia and Islam): Intangible
Asian approach:
The Nara Document on Authenticity (International ICOMOS) aims to challenge conventional thinking in the field of conservation and fully respect social values, cultural diversity, and all aspects of belief systems, including form and design, materials and substance, use and function, traditions and techniques, location and setting, as well as desires and feelings. The Hoi An Protocol was introduced by UNESCO Bangkok in 2005 as a project aimed at enhancing the Nara Document, by ensuring and maintaining the authenticity of Asian cultural heritage sites.

Islamic approach:
In the Islamic Approach, intangibles are based on myth, religion (god), and scholasticism, which refer to the Qur'an and Hadith.

RESEARCH METHODOLOGY
This research took place at Fort Indrapatra, Krueng Raya, Aceh Besar District, Aceh. The research uses a qualitative approach with a comparative study method, namely comparing two or more conditions, events, activities, programs (Sukmadinata, 2012). This study attempts to compare conservation initiatives at Borobudur Temple and Fort Rotterdam (secondary data). A comparative study comparing tangible and intangible conservation initiatives at the two study locations. Comparative research also provides an overview of the variables studied in each group of research subjects being compared. Documentation of data that is sufficiently complete to allow wide-scale and meaningful comparative analysis is an important consideration in the case study approach (Borobudur Temple & Rotterdam Ford), thus allowing high validity in testing the proposed model (Knight and Ruddock, 2008). The results of this comparison are then analyzed descriptively which provides a more detailed description of a symptom or phenomenon (Setiawati and Murwadi, 2019).

Sources of data in this study are primary and secondary. Primary data were obtained from observations of Indrapatra fort objects, interviews and documentation, while secondary data were obtained from literature studies of scientific journals and books related to research topics.
ANALYSIS AND DISCUSSION

Case Study on Borobudur Temple

Borobudur Temple is located in Magelang, Central Java. Borobudur is a stupa-shaped temple founded by Mahayana Buddhists around the 8th century, during the reign of the Syailendra dynasty. Since the Dutch colonial period, Borobudur Temple has been conserved several times to maintain it in a sustainable manner, as shown in the table 1 below.

<table>
<thead>
<tr>
<th>Table 1: Conservation initiatives in Borobudur Temple</th>
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</thead>
<tbody>
<tr>
<td><strong>Aspect</strong></td>
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<tr>
<td><strong>Tangible</strong></td>
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<td></td>
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</table>

**Borobudur Annual Festival**

The annual Vesak celebration by Buddhists in Indonesia, which is centered nationally in the Borobudur Temple complex, is one of the intangible conservations of Borobudur Temple. This celebration typically begins at Mendut Temple, then proceeds to Pawon Temple, and finally to Borobudur Temple, the main venue. This festival has the potential to draw tens of thousands of tourists to Borobudur Temple. Even though it occurs only once a year, the existence of this festival ensures that the intangible tradition is preserved.
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Safeguarding Cultural Heritage Site: Comparative Study for Establishing Conservation Initiatives on Indrapatra Fort, Aceh Besar

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Borobudur Masterpiece Ballet

The Borobudur Masterpiece Ballet involving 200 artists tells the story of the construction of Borobudur in the 8th century during the reign of Maharaja Samaratungga. This dance genre is a cultural heritage originating from the Ancient Mataram era in the seventh century, aiming to attract tourists.

Borobudur Nite

Borobudur Nite: Music, Lantern & Pray is an annual event held by PT Taman Wisata Candi Borobudur, Prambanan and Ratu Boko (PT TWC). Various activities, music concerts, art performances, culinary exhibitions, and other activities. The highlight of this festival is the interfaith prayer and the release of lanterns at the turn of the year. The ticket price to be able to take part in this event is IDR 150,000 for the festival class, and IDR 500,000 for the platinum class.

Source: analysis by authors from various sources, 2022

Case Study on Rotterdam Fort

Rotterdam Fort is a historical site in the kingdom of Gowa-Tallo, located on the coast of the Makassar Strait west of Makassar City, South Sulawesi. The Xth King of Gowa built this fort in 1545 with a rectangular shape and clay material that was later replaced with black onslaught from the Karst Mountains and other materials such as coral stone and brick with lime adhesive and sand. The following year, a second wall near the gate was constructed. Because of the severe damage caused by the VOC invasion, Ujung Pandang Fort fell into the hands of the Dutch, who renamed it Rotterdam Fort.

Rotterdam Fort has changed its function several times throughout its history, until finally in the 1970s the fort was extensively restored. The conservation process can be seen in Table 2 below:

<table>
<thead>
<tr>
<th>Object</th>
<th>Documentation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible</td>
<td></td>
<td>The fort was restored in 1976 by the Historical and Archaeological Center of Makassar. The walls on the left and right of the fort gate were replaced with exposed natural stone material which previously used plastered bricks. The room on the second floor is currently used as a photo spot. The condition of the roof is so bad that it</td>
</tr>
<tr>
<td>Intangible</td>
<td></td>
<td>The Dutch occupation of Fort Rotterdam overhauled the structure and design of this fort by dismantling most of it, leaving several forts to be occupied and adding five bastions on the east side (Amboina and Mandarsyah bastions) and west side (Bacan, Bone and Buton bastions) so that their shape resembles a turtle. The people of Makassar call it Panyyua Fort</td>
</tr>
</tbody>
</table>

Table 2: Conservation initiatives in Rotterdam Fort

Source: analysis by authors from various sources, 2022
cannot be reconstructed, the results of the reconstruction cannot be the same.

All Fort Rotterdam buildings are preserved by the Cultural Heritage Protection Agency with reference to indicators of rescue, security, maintenance and restoration. For rescue, every year data is collected on buildings that have begun to experience damage due to human or natural causes, then these structures are restored or preserved to preserve cultural heritage values.

Security measures include installing anti-lightning, installing CCTV, making regulations for visitors, making iron fences and security posts, appointing and forming caretakers from ASN and honorary staff. The most recent renovation was done in 2018.

**Educational Facility**

The intangible conservation of Rotterdam Fort includes adaptive reuse or transfer of functions to become a Legaligo museum, art center and tourist attraction, from its previous state while maintaining its cultural characteristic values.

**Art Festival and Exhibition**

Various arts festivals are held at Fort Rotterdam, including dances, exhibitions and other art forms that can help develop cultural heritage. Another intangible aspect that is carried out is Fort Rotterdam research which aims to add information about Fort Rotterdam through direct surveys to various valid sources, which are then reviewed, and so on conveying the results of research (information) to the public through outreach, print media (written), electronic (via television, film), and provision of information space related to the history of Rotterdam Fort.

Source: analysis by authors based on data from kebudayaan.kemdikbud.go.id, 2022

Recommendations for conservation initiatives can be classified as tangible or intangible, as summarized in the following table.

**Table 3: Conservation Initiatives**

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Tangible</strong></td>
<td>1. Replacing the damaged material with the same or similar new material.</td>
</tr>
<tr>
<td></td>
<td>2. Creating supporting facilities that support conservation objects so that they are of interest again.</td>
</tr>
<tr>
<td></td>
<td>3. Reconstructing damaged conservation objects based on previously collected reference data.</td>
</tr>
<tr>
<td><strong>Intangible</strong></td>
<td>1. Providing historical education about the formation of conservation objects either through print or electronic media.</td>
</tr>
</tbody>
</table>
Establishing a guide or agency for the restoration and maintenance of conservation objects.

Source: analysis by the authors from various sources, 2022

Existing Condition of Indrapatra Fort

The main fort (A) is 70x70 m in size and contains three stupa-like wells (Figure 2). During the Hindu Kingdom, the well was used for prayer. This fort's function has changed several times, most notably during the Hindu period, when it served as a place of worship as well as a residence for the king and his family. After Islam entered, it changed its function as a defense against the Portuguese, and after the emergence of the Aceh Darussalam sultanate, particularly during the reign of Sultan Iskandar Muda (1607-1636), it also served as an arsenal and the main center of defense to repel attacks from the Malacca Straits, and it now serves as a cultural heritage site. But unfortunately, the lack of a good maintenance strategies, continuous neglect and insufficient preservation works by the relevant local government conservation agencies entails to near non-existence of conservation initiatives influenced the existing condition of the fort.

At Indrapatra Fort apart from the main fort, there is an additional fort (B) which is used as a place to place cannons and ammunition facing west (figure 1). The building measures 30 x 30 m and consists of 3 bunkers. 2 bunkers are used as a place to place and fire cannons and 1 bunker is used as a storage area for other purposes (picture 3). Apart from the 2 bunkers inside the fort which were used to place cannons and fire shots, there were other small holes in the wall with the same function (picture 3). There are 7 of these holes, 3 on each of the
right and left sides which do not have bunkers and 1 of 2 bunkers. The entire fort was made using adhesive material from calcite type limestone and mollusk shells (Fitri et al, 2016).

Conservation Action of Indrapatra Fort

Tangible (Physical)

The development strategy is to rearrange Fort Indrapatra to its original form and provide tourism support facilities. According to Wuisang et al. (2019), reviving historical areas can be done by adjusting to the needs of the surrounding community, accompanied by environmental potential. Some of Indrapatra's potentials that can be developed are: (i) the building has historical value which can be used as education for the community; (ii) the location is by the beach; and (iii) there is accessible accommodation at the location (Figure 4). These three potentials can be managed by taking into account social, economic and physical conditions.

Indrapatra's condition was damaged by the tidal wave (Figure 4), so construction repairs were needed. The disaster risk management cycle for cultural heritage sites is risk assessment, risk prevention and mitigation, emergency
preparedness and response procedures, recovery and rehabilitation, maintenance, and damage assessment (Jigyasu, et al., 2010). In line with that, Indrapatra Fort needs restoration, rehabilitation and maintenance. This fort already has prayer facilities, toilets, and selling stalls, but the conditions are not yet fit for use. To increase the number of visitors, the development and improvement of tourism facilities must be supported (Suryani, 2017). According to Parma (2019), a tourist attraction must have the following characteristics: (i) Something to see; (ii) Something to do; (iii) Something to buy. Based on this, the author made a realignment aimed at revitalizing the Indrapatra Fort area, as depicted in Figure 5.

![Proposed Revitalization of the Indrapatra Fort Area](image)

**Figure 5. Proposed Revitalization of the Indrapatra Fort Area**

Source: Author’s, 2022

According to Figure 5, before entering Indrapatra Fort, you will be greeted by a gate which represents culture by exposing bricks (point 1), after which the entrance is divided into two lanes to make it easier for visitors to access and banners giving directions (point 2). Visitors can find early ticket sales, prayer rooms, bathrooms, management areas, and meeting rooms at point 3. The prayer room will have a dome to make it feel more like a place of worship. Visitors will find two-wheeled and four-wheeled parking areas at point 4. In addition, the author provides horses as a mode of transportation. Point 5 describes the three
Indrapatra forts that have been reconstructed, as well as additional supporting facilities, such as tennis courts and basketball courts. Point 6 describes another reconstructed fort near the beach, as well as a market selling souvenirs and culinary delights. Seats are also provided at point 6 for tourists who want to enjoy the beach. A fish pond is also provided in the center of the garden, and its purpose is to help out when the tide is high. This facility will support economic, social and environmental growth.

**Indrapatra fort materials replacement**
The material used to build Borobudur Temple is andesite stone (Haldoko et al., 2014). Fort Rotterdam is made of black stone (Anzhar, 2017). The Cultural Heritage Conservation Center is still working on using the same materials in the reconstruction of Borobudur and Rotterdam, to maintain consistency with the previous structure. The constituent rocks used in the Indraptra Fortress case study are clastic limestone, non-clastic limestone, andesite, and coral/coral (Swastikawati et al., 2021).

<table>
<thead>
<tr>
<th>Current Indrapatra Stone Materials</th>
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</thead>
<tbody>
<tr>
<td>Clastic limestone</td>
</tr>
<tr>
<td>Non-clastic limestone</td>
</tr>
<tr>
<td>Andesite stone</td>
</tr>
<tr>
<td>Coral/reef</td>
</tr>
</tbody>
</table>

**Figure 6.** The building blocks for the reconstruction of Indrapatra Fort

*Source: Author’s, 2022*

Furthermore, other conservation initiatives that can be made to safeguarding the cultural heritage value of Indrapatra Fort when referring to comparative studies are:

(i) Choose the same or similar material as the previous one, for example using a river stone of the same size as before. Markers need to be made to remind visitors of the original fort locations/places and locations/places that are no longer original.

(ii) Rebuilding the damaged parts by gluing the material back to its original position so that the building looks like before. Visitors will learn about the history of Indrapatra's physical formation as a result of reconstruction. One example is the fort wall (Figure 7). To get an idea of the form to be reconstructed, reconstruction efforts can refer to valid sources or the results of discussions by historians, one of which is shown in Figure 8.
(i) Maintain Indrapatra Fort by first recording the damaged parts, replacing them with similar materials, cleaning each part of the fort, and appointing maintenance officers who will routinely carry out their duties to keep the fort in good condition. This is in line with the Burra Charter (1981), that all conservation activities must include maintenance that is appropriate to local conditions and can also include preservation, restoration, reconstruction, adaptation, and revitalization.

**Intangible (Non-physical)**

*Art performance at the indrapatra fort*

Fort Indrapatra can carry out intangible conservation initiatives in addition to tangible conservation initiatives, by holding an art performance at Indrapatra Fort with the theme of the history of the fort (Figure 9). Performing arts can include activities such as dance performances, musical plays and storytelling. This activity is expected to attract the attention and interest of the community in order to increase the existence of the Indrapatra Fort site while preserving the local cultural heritage.
Annual indrapatra fort festival
Initiatives that can be carried out are annual events that are expected to attract both domestic and foreign visitors, can be carried out when commemorating important days, such as Heroes' Day, National Awakening Day, and others.

Providing a tour guide
The next suggestion for preserving Indrapatra Fort's intangible value is to provide a guide to guide and explain the history of Indrapatra Fort. Hearing the guide's narrative is far more uplifting than simply seeing the photos or writings listed in the courtyard. This oral communication is analogous to hearing stories from ancient ancestors, who also passed down traditions, customs, and folklore through word of mouth. Kotler In Joesyiana (2018) mentions how word of mouth can provide listeners with a sense of satisfaction. Position guides can also be coupled with the use of artificial intelligence to provide more information.

CONCLUSION
In this paper, the author uses the Le Duc principle of maintaining, reconstructing and replacing materials with those that tend to be similar to heritage buildings. The purpose of this conservation is education, recreation, inspiration and the economy.
Based on the results and discussion of the two case studies, recommendations for conservation initiatives for Indrapatra Fort, which, practically can be implemented in two ways, both upon its tangible and intangible aspects.

The recommended tangible initiative is the reconstruction of the damaged fort’s structures and elements with similar materials, combined with good maintenance strategies. While the proposed intangible fort initiative includes activities such as the Indrapatra Fort Art Show, the Indrapatra Fort Annual Festival, and the preparation of Indrapatra Fort guides. The recommendations for this conservation initiative can be an option to be implemented so that the Indraratra landscape remains sustainable in the future as a cultural heritage site.

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