

# **PRESERVING SABAH'S HERITAGE: CHALLENGES AND PRACTICES IN MUSEUM COLLECTION MANAGEMENT AND CONSERVATION (2014- 2016)**

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**Abstract:** This study examines the management and conservation of cultural artifacts at the Sabah Museum, Malaysia, focusing on the procedures, practices, and challenges involved. The research aims to explore how the museum acquires, categorizes, and preserves its collections, which encompass Sabah cultural and heritage. The research is guided by the following objectives: (1) to analyses the acquisition and categorization of artifacts at the Sabah Museum, (2) to examine the conservation methods employed, including environmental factors affecting preservation, (3) to highlight the cultural significance of artifacts through Ethnology Storage Unit. This qualitative study employs an ethnographic research methodology, incorporating field observations, interviews with museum staff, and document analysis. The findings reveal that while the museum has structured conservation practices, it faces significant challenges in expertise, funding, and infrastructure. The study underscores the importance of preserving cultural artifacts for future generations and contributes to a broader understanding of museum collection management within a diverse cultural setting like Sabah.

**Keywords:** Artefact Management, conservation practices, cultural heritage preservation, museum collections, Sabah Museum

## 1. INTRODUCTION

Museums have evolved to encompass a variety of institutions dedicated to education, conservation, research, and exhibition. According to ICOM (2007), a museum is a non-profit, permanent institution that acquires, preserves, and shares both tangible and intangible heritage while being open to the public for learning and engagement. This broad definition extends beyond traditional museums to include archaeological sites, botanical gardens, zoological parks, aquariums, science centers, and non-profit art galleries. Additionally, conservation institutes, nature reserves, library and archive exhibition spaces, government agencies, and cultural centers that safeguard heritage are also recognized as part of the museum sector.

Based on Kiyai and Tugang (2020) museums are established to serve as institutions for collecting historical, artistic, and cultural artifacts, preserving and conserving them, conducting research, exhibiting, documenting, and educating the public. The origins of museums can be traced back to antiquarianism in Europe before the 19th century, where the practice of collecting ancient objects played a significant role. This practice involved gathering rare, unusual, and often mystical artifacts, primarily led by royalty and the aristocracy, as a symbol of social status and a space for discussions on art, ancient objects, and scientific specimens. This tradition of collecting eventually gave rise to the concept of Cabinets of Curiosities, which is considered the foundational model for modern museums. Early museums were characterized by their focus on collecting and displaying unique, rare, and valuable specimens. Over time, museums evolved into institutions with a more academic and scholarly approach, emphasizing the collection of artifacts with historical and cultural significance.

In response to this, Januszewska (2020) examined a new definition of museums based on the ICOM convention held in Kyoto in 2019, which states:

*"Museums create democratic, inclusive, and polyphonic spaces for critical dialogue about the past and future. They acknowledge and address contemporary conflicts, act as guardians of artifacts and specimens entrusted to them by society and preserve diverse memories for future generations. Museums ensure equal rights and access to heritage for all people. As non-profit institutions, they operate transparently and collaboratively with communities, actively engaging in collecting, preserving, researching, interpreting, and exhibiting to enhance understanding of the world. Their ultimate goal is to*

*contribute to human dignity, social justice, global equality, and the well-being of the planet*" (Januszewska, 2020).

Museums have long been established as institutions that collect, preserve, and showcase historical, artistic, and cultural artifacts. According to the International Council of Museums (ICOM), traditional museum functions include conservation, documentation, research, and education. However, as societies evolve, the role of museums has also transformed to meet contemporary needs. The revised museum definition proposed by ICOM in 2019 at the Kyoto convention emphasizes inclusivity, participation, and social responsibility. This new definition highlights museums as democratic spaces for dialogue, social justice, and sustainability. The Sabah Museum, as a key cultural institution in Malaysia, embodies these evolving principles through its commitment to heritage preservation, inclusivity, and environmental sustainability.

The modern definition of museums emphasizes inclusivity, recognizing them as spaces where diverse voices are acknowledged. The Sabah Museum plays a crucial role in fostering dialogue among the various ethnic communities of Sabah, including the KadazanDusun, Bajau, Murut, and many others. By featuring exhibitions and programs that celebrate the traditions and histories of these indigenous groups, the museum ensures that their cultural narratives remain relevant and accessible. Additionally, community participation in curatorial efforts allows local voices to shape the museum's storytelling, ensuring that heritage is preserved in an authentic and representative manner.

One of the fundamental responsibilities of a museum is to safeguard the cultural and historical memory of a society. The Sabah Museum achieves this through its extensive collection of ethnographic artifacts, archaeological finds, and historical documents. The museum serves as a custodian of objects that represent the collective heritage of Sabah's people, from ancient tools and traditional textiles to ritualistic objects and religious artifacts. By preserving and interpreting these materials, the museum helps to maintain a link between past and present, allowing future generations to understand their cultural roots. This aligns with the ICOM definition, which emphasizes the role of museums in protecting diverse memories for the benefit of future generations. This study will explore how the Sabah Museum acquires and classifies artifacts, examine the conservation methods used (including environmental factors affecting preservation), and emphasize the role of artifacts in preserving Sabah's cultural heritage.

## 2. BACKGROUND

### 2.1 *History of the Sabah Museum*

The earliest documented reference to a museum in Sabah appeared in the British North Borneo Herald on August 1, 1886. The article described a proposal by Sir D.D. Daly to establish a museum in Sandakan, called the North Borneo British Museum, which was to be managed by J.W. Wilson. However, this initiative faced numerous challenges, and the museum closed in 1905, with much of its collection lost or destroyed during its abandonment.

In 1923, efforts were made to re-establish the museum in Sandakan, with H.G. Keith assuming management in 1925. Unfortunately, World War II caused further devastation, as the Japanese invasion led to the destruction of the museum's collections and records. After the war, in 1947, Governor Sir Edward Twining initiated efforts to revive the Sabah Museum by establishing a fund to manage its archival materials. However, the committee formed to oversee this revival disbanded after producing only an initial report due to internal challenges. Despite these setbacks, the Sabah Society, a local organization, advocated for the establishment of a museum dedicated to preserving Sabah's heritage. After World War II, the British continued to manage the museum, and David McCredie was appointed to oversee its operations while awaiting the completion of a new building (Patricia Regis, 1990; Sintiong, 2015).

In 1965, the Sabah Museum was officially handed over to its first curator, E.J. Berwick, who served until 1966. He was succeeded by a number of curators, including R.J. Brooks (1966-1968), Gordon Noris (1968), Michael Pike (1968-1973), Datu Stephen Lee (1972-1974), and Datuk Hendry Mosiun (1974-1975), with Joanna Datuk Kitingan currently serving in the position. In 1966, the Archives Department was merged with the museum, but this arrangement ended in 1972 when the two entities became separate. As the museum's collections grew, it moved to the third floor of Nasmal Court in 1969. The enactment of the Antiquities Enactment in 1969 granted the museum greater control over its preservation efforts. To accommodate the growing collection, additional space was acquired in the building.



**Figure 1:** Newspaper article reporting on the Sabah Museum site (Source: The newspaper article was sourced by the researcher from the Sabah State Archives Department in 2015).

Recognizing the importance of cultural heritage, the state government decided to relocate the museum to a larger site in 1970. The new location at Bukit Istana Lama was chosen, and the museum's new complex, covering 16.69 hectares, was completed with a construction budget of RM 31.2 million. The museum officially opened on April 11, 1984, with Sultan Hj. Ahmad Shah Al-Mustain Billah, the 8th Yang Di-Pertuan Agong, presiding over the ceremony.

The Sabah Museum's history began in 1888, under the directive of the British Governor, and continued until 1905. During this time, the British administration collected items for the museum, although these efforts lacked systematic research or detailed documentation. The museum, along with its collections, was destroyed during World War II, halting efforts to establish a permanent museum in Sabah. In 1925, following pressure from the Sabah Society and inspired by the development of similar institutions in British Malaya, Governor Sir Edward Francis Twining revived the museum (Sabah Museum Annual Report 1991, 1995 and 1996). After World War II, the management of the Sabah Museum was heavily dependent on external experts. E.J. Berwick, who also served as the Director of Agriculture in Sabah, became the museum's first curator. Under his leadership, the museum's collections were stored in Tuaran, alongside the agricultural research center. In 1966, when Berwick returned to Britain, the museum was placed under the Ministry of Communications. During this time, it was managed by British officers and qualified local personnel, with David W. McCredie being appointed as curator in 1970. McCredie's tenure lasted until 1980, with his contract extended for an additional three years. The following is a list of curators who served at the museum until 1965:

- i. E.J. Berwick
- ii. R.J. Brooks

- iii. Gordon Noris
- iv. Michael Pike
- v. Datu Stephen Lee
- vi. Henry Mosiun
- vii. Justin Mak
- viii. David W. McCredie

Although the Sabah Museum is now administered by local personnel, its ongoing reliance on external expertise is still evident. This is particularly noticeable in specialized disciplines, such as archaeology, where advanced knowledge and skills are necessary. Despite the museum's increasing autonomy, external input remains vital for the preservation, research, and expansion of its collections (Sabah Museum Annual Report, 1996)

### **3. METHODOLOGY**

This study employs a qualitative research approach, utilizing ethnographic field research and participant observation to examine artifact management at the Sabah Museum. The methodological framework integrates in-depth interviews, direct observations, and document analysis to gain a comprehensive understanding of the museum's management practices and decision-making processes regarding artifact curation and conservation.

The primary data collection method involves structured and semi-structured interviews with key informants, including senior museum staff such as Peter Khoon and Peter Molijol, who are experts in artifact management and pioneers in the development of the museum's collection. Additionally, interviews will be conducted with the previous Director of the Sabah Museum, Puan Joana Kitingan, to gain insights into the museum's administrative strategies for artifact preservation, classification, and exhibition priorities. These interviews will focus on critical aspects such as artifact selection criteria, Sabah's role as a significant contributor of artifacts at the national level, administrative and preservation strategies, and exhibition planning.

To strengthen the reliability of findings, the study also incorporates non-participant observations in the conservation laboratories and storage units. Observing conservation techniques firsthand allows for a deeper understanding of preservation challenges and the impact of limited resources. Furthermore, the study will document how artifacts are handled, stored, and treated, providing visual evidence of conservation techniques through field notes and photographic documentation.

The research also relies on two types of data sources: primary sources and secondary sources. Primary data will be gathered through interviews with relevant stakeholders at the Sabah Museum, providing firsthand information on the museum's policies and procedures regarding artifact management. Additionally, artifact conservation reports and unpublished internal documents from the Sabah Museum will be reviewed to supplement interview findings.

Secondary data will be obtained from existing literature, including academic references from the published journal (relevant with this topic). Comparative insights into best practices in museum artifact curation and management will also be drawn from international case studies and publications from institutions such as the International Council of Museums (ICOM) and UNESCO. This triangulated research approach ensures a holistic analysis of artifact management practices at the Sabah Museum, contributing to a deeper understanding of heritage preservation and museum curation strategies.

## **4. EMPIRICAL RESULTS AND ANALYSIS**

### ***4.1 Acquisition and Categorization of Artifacts at the Sabah Museum***

The Sabah Museum, established in 1965, serves as the primary repository for cultural, historical, and natural heritage artifacts in the state of Sabah, Malaysia. As an institution dedicated to preserving and showcasing the region's diverse cultural heritage, the museum's artifact acquisition and categorization processes play a crucial role in maintaining the integrity of its collections. This essay examines the acquisition methods employed by the Sabah Museum and the classification system used to organize its artifacts.

#### *i. Donations*

Many of the museum's artifacts are donated by individuals, families, or institutions. These donations often include heirlooms, traditional costumes, ritual objects, and personal collections of historical significance. The image 1 depicts an artifact donated by the Fedrick family from Penampang to the Sabah Museum. The object in question is a Bangkawan—a human skull—which holds significant cultural value as a family heirloom passed down through generations. According to Fedrick, the Bangkawan was historically used by their ancestors in agricultural rituals aimed at ensuring the protection of the harvest, as well as for other ceremonial purposes. Each year, a ritual offering of food would be made to the Bangkawan in order to appease its spirit and prevent any potential harm or misfortune from befalling the family.



**Figure 2:** Bangkawan a donation from Fedrick family from Penampang to the Sabah Museum in 2011 (Sources: Fieldwork, 2011)

However, over time, the relevance and function of the Bangkawan have evolved, and the Fedrick family found themselves unable to continue the ancestral practice. Since the passing of their grandmother, the ritual of offering food to the Bangkawan has ceased, and the artifact has remained neglected. Fearing that the artifact might eventually be lost due to changing circumstances, the family made the decision to donate it to the Sabah Museum. They entrusted the museum with the responsibility of preserving this cultural heritage, confident in the institution's ability to safeguard and maintain such items for future generations. Alongside the Bangkawan, the family also donated other ritual objects, including the Tajau and Talam, which were integral to the ceremonies.

Before the donation, the Fedrick family performed a ritual known as Mamason, which was meant to convey a message to the spirit of Gompi Bangkawan. The ceremony, overseen by two females Bobohizan (traditional spiritual leaders), required all family members and relatives to first participate in a thanksgiving feast. Once the feast concluded, the ritual began, with the Bobohizan donning distinctive black attire and utilizing ritual items such as a sword, koumbongo, gonding, and two black chickens placed near the Bangkawan. This ceremony highlights the continuing importance of ritual practices, and the cultural significance of the objects associated with them.

Apart from the Frederick family, two former members of the Second Ranger Regiment, namely Ranger Regiment Captain Abdullah @ Abdul Karim Mohd Yossop, who led the plaque presentation ceremony for the regiment, donated two ranger plaques and three ranger engine motors, as well as a book on the history of the Ranger Regiment from 1862 to 1992 and thirty original photographs taken between 1963 and 1968. Among the operations participated in by this Ranger Regiment were

the Confrontation incident on December 1, 1966, in Pulau Sebatik, Tawau, Operation Gonzales on April 23, 1974, in Sungai Siput, Perak, Operation Ngelaban in Ulu Oya, Sarawak, and Operation Kota Charlie/Delta in Gubir, Sik, Kedah, in 1987 (interview with informant Puan Siu Chin Sindih)

*ii. Field Collection and Ethnographic Research*

Museum researchers actively engage in fieldwork to collect artifacts from indigenous communities, particularly in rural and interior regions of Sabah. This process includes detailed documentation of the objects' cultural context and use. In 1987, Professor John Landgraph of New York University formally transferred a collection of Murut artifacts to the Sabah Museum, comprising materials from the British colonial period in Sabah.

The collection includes printed documents from 1947, eight canisters, a government microfilm from 1955, ethnographic records on Murut cultural traditions, and approximately 2,000 black-and-white film negatives. Additionally, the donation features artifacts crafted from bamboo, wood, and silver, as well as traditional Murut adornments and attire. Professor Landgraph noted that these materials were accumulated during his research, conducted under a British government grant in North Borneo. He emphasized that the artifacts should be returned to their rightful custodians and expressed hope that the collection would serve as a valuable resource for the study and preservation of Murut heritage in Sabah.

The Sabah Museum Department has acquired several significant collections over the years, each contributing to the institution's role in preserving and documenting the region's cultural, historical, and natural heritage. Among these collections are The Pamol Collection, The Philip Collection, The Longfield Collection, and The Woolley Collection, each of which reflects different aspects of Sabah's past.

The Pamol Collection comprises Chinese ceramics dating from the 10th-century Song Dynasty to the 12th-century Yuan Dynasty, alongside a complete set of imperial Chinese family bedroom furnishings. These artifacts were discovered in 1976 by plantation workers at a palm oil estate in Pamol, Kimanis, highlighting the presence of historical trade networks that connected Sabah to broader Asian maritime exchanges. The Philip Collection, donated by the Philip family in April 1978, consists of various species of coral found in the shallow waters of Kota Kinabalu and Tanjung Aru. This collection is now housed in the Natural History Gallery on the second floor of the museum, serving as an important reference for the study of Sabah's marine biodiversity. The Longfield Collection is an extensive photographic archive documenting British colonial administration in Sabah. It was generously donated by

the family of J. Longfield, who had been residing in Sabah since December 1978. This collection provides valuable visual records of life during the colonial period, offering researchers and historians insights into the sociopolitical landscape of the time.

Among the most significant contributions to the museum's foundational collections is the Woolley Collection. This was the first official collection acquired by the Sabah Museum, forming the cornerstone of its early development. Donated by G.C. Woolley, a colonial administrator for the British North Borneo Chartered Company, the collection includes cultural artifacts, photographs, books, journals, and administrative documents related to the Chartered Company's governance in Sabah before World War II. The Woolley Collection remains an essential resource for understanding the colonial history of Sabah and its impact on indigenous communities. Each of these collections represents a crucial component of the Sabah Museum's mission to safeguard the region's tangible and intangible heritage. Through these acquisitions, the museum continues to serve as a repository of knowledge, ensuring that the rich history and biodiversity of Sabah are preserved for future generations.

The Sabah Museum houses one of the most comprehensive ceramic collections in Southeast Asia. Across Sabah, particularly along the East Coast, which historically served as a major maritime trade route for Chinese merchants, ceramics have played a significant role in regional trade. The export of Chinese ceramics to Borneo dates back approximately 1,200 years, with major trade emporiums established in southern Borneo, notably in Santubong, at the mouth of the Kuching River in Sarawak, and in Brunei at Kota Batu.

Although the Sultan of Brunei is believed to have embraced Islam in the early 16th century, archaeological findings indicate that trade between China and Brunei predates this period, as evidenced by the discovery of ceramics at various archaeological sites. According to Othman Mohd. Yatim (1981), ceramics and storage jars played a crucial role in the cultural practices of indigenous communities in Sabah and Sarawak. It is believed that their introduction to ceramic ware and storage jars was incidental, occurring through maritime trade in the early 16th century. Chinese traders, who ventured into this region in search of forest products such as rattan, spices, damar resin, and other valuable goods, initially used storage jars for food preservation and as ballast for their ships. This practicality caught the interest of indigenous communities, leading to the development of a barter trade system that facilitated the exchange of goods. Due to increasing local demand, Chinese traders expanded their ceramic trade, introducing a variety of storage jars in

different shapes, colors, and decorative styles to appeal to indigenous buyers. Consequently, ceramic scholars suggest that these pottery items were specifically produced in southern China for the indigenous communities of Sabah and Sarawak (interview with informant Peter Molijol in 2015)'



**Figure 3:** Ceramic collection in Sabah Museum (Sources: Fieldwork, 2011)

The following is a list of ceramic and storage jar collections currently displayed in the Ceramics Gallery on the second floor of the Sabah Museum:

- i. European Pottery (19th and 20th Century)
- ii. Japanese Pottery (17th and 19th Century)
- iii. Vietnamese Trade Ceramics (14th to 19th Century)
- iv. Siamese Trade Ceramics (14th to 19th Century)
- v. Late Qing Dynasty Trade Ceramics (1796–1912 AD)
- vi. Qing Dynasty Trade Ceramics (1644–1912 AD)
- vii. Late Ming Dynasty Trade Ceramics (1566–1644 AD)
- viii. Ming Dynasty Trade Ceramics (1368–1644 AD)
- ix. Yuan Dynasty Trade Ceramics (1279–1368 AD)
- x. Song Dynasty Trade Ceramics (960–1279 AD)
- xi. Ceramics from the Simpang Mengayau Shipwreck Site, Kudat

Beyond ceramics, tajau (large storage jars) are an integral part of the exhibition at the Sabah Museum's ceramics gallery. These jars have been acquired through donations from local communities, fieldwork, and direct purchases by the museum. Within Sabah's indigenous societies, tajau hold deep cultural and historical significance, playing a vital role in both daily life and traditional practices.

For the Dusun and Murut communities, tajau are regarded as valuable heirlooms, passed down from one generation to another. These jars serve multiple functions, including their use as burial vessels for the deceased, storage containers for Tapai

(fermented rice wine), and bridal dowries in marriage ceremonies. Among the Murut people of Pensiangan, the exchange of tajau is a crucial part of wedding traditions, particularly within a practice known as Antalang, which involves the collection of bridal gifts (berian). The Murut wedding system is often regarded as one of the most complex among Sabah's indigenous communities, with tajau playing an essential role. In a ritual known as Tiluan, the groom's family is required to present tajau to the bride's family as part of the marriage negotiations.

Beyond their ceremonial importance, tajau are also used in weather-related rituals. During periods of drought, communities place tajau and large storage jars in designated locations while performing rain-calling ceremonies. It is widely believed that failing to care for or properly maintain these jars could result in misfortune for their owners, often in the form of persistent illness. To prevent such occurrences, a ritual cleansing is performed to "appease" the tajau. This involves a sacrificial offering, where the blood of a chicken or pig is sprinkled over the jar's surface in a symbolic act of purification. Among the most significant tajau housed in the Sabah Museum are the Blue and White Jar and Tabu Lita, both of which are prominently displayed in a dedicated section of the ceramic's gallery. Tabu Lita, in particular, is regarded as one of the most exceptional tajau in the collection, distinguished by its vivid coloration and well-preserved intricate patterns. Additionally, the gallery features various other ceramic artifacts, including items excavated from Pulau Eno in Labuan. Based on research, these ceramics date back to between the 10th and 20th centuries, underscoring the region's long-standing ceramic tradition and its historical connections to maritime trade.



**Figure 4:** Tabu Dita- a Nobel ceramic in indigenous material culture (Sources: Fieldwork, 2015)

#### **4.2 Conservation and Preservation of Artifacts in Museums**

Conservation and preservation play a crucial role in ensuring the longevity of artifacts in museums. These processes involve a series of spontaneous actions aimed at cleaning, treating, repairing, and restoring artifacts while maintaining their original form. The primary objective of conservation is to strengthen and stabilize artifacts to prevent further deterioration, ensuring their historical and cultural significance is preserved for future generations. Artifacts in the Sabah Museum rarely experience serious damage. According to informant Tan, common treatment methods for artifacts include dust suction, cleaning active bacteria attached to metal and copper artifacts such as gongs, betel nut sets, and kries, as well as reassembling ceramics using special adhesives. Additionally, other conservation methods involve the use of chemicals such as ethanol, wax, highly flammable substances, and Ajax Chemical.

For artifacts that cannot be repaired, they will be returned to their respective units. In museum conservation, the handling of artifacts requiring chemical treatment must follow strict protocols to ensure both artifact preservation and environmental safety. A specialized isolation chamber is utilized to contain hazardous chemicals, preventing cross-contamination with other artifacts in the collection. Artifacts that typically undergo chemical treatment include metal-based objects such as gongs, kries, and items made from copper, iron, and other alloys. Prior to treatment, these artifacts are first relocated to a designated isolation area to minimize exposure to external factors.



**Figure 5:** Researcher's Observation in the Conservation Laboratory of the Sabah Museum Department in 2015 (Source: Fieldwork, 2015).

The conservation process begins with thorough documentation, including high-resolution photography to capture the artifact's condition before intervention. Detailed records of existing damage and the appropriate treatment methods are then compiled. Once the preliminary assessment is completed, the artifact is carefully transferred to the conservation laboratory, where necessary treatments are conducted in a controlled environment to restore its structural integrity while preserving its original form. The museum conservation unit follows strict procedures when conducting artifact treatments to ensure both staff safety and the preservation of cultural objects. All conservation personnel are required to wear laboratory coats, gloves, and protective eyewear to prevent injuries and avoid contamination of artifacts. These safety measures are essential in minimizing potential risks associated with handling hazardous chemicals and fragile materials. Compliance with these procedures is mandatory for all conservators when carrying out treatments, ensuring that artifacts are restored under controlled and secure conditions while maintaining professional conservation standards.

#### **4.3 Ethnology Storage Unit: Preserving Sabah's Indigenous Cultural Heritage**

The Ethnology Storage Unit plays a crucial role in safeguarding the material culture of Sabah's indigenous communities, ensuring the continuity of their traditions and way of life. This facility houses a diverse collection of cultural artifacts that reflect various aspects of traditional existence, including religious practices, healing rituals,

craftsmanship, weaponry, traditional attire, and household tools. The storage unit is organized into two main sections: Ethnology Storage 1, which contains non-organic materials, and Ethnology Storage 2, which focuses on textiles and adornments from different ethnic groups in Sabah. The acquisition of these artifacts follows three main channels—purchases, fieldwork, and donations from individuals or community members.

The conservation and maintenance of these collections are overseen by Mr. Jaimol and a team of four museum staff members, who ensure that proper preservation measures are in place. In Ethnology Storage 1, strict environmental controls are implemented to prevent deterioration. The storage area is kept at a consistent temperature of 23°C with a relative humidity level of 41%, similar to zoological storage conditions. These measures are critical in preserving artifacts, many of which date back hundreds of years. To minimize damage caused by light exposure, the storage area remains darkened, with artificial lighting used only when conservation staff or researchers conduct inspections and documentation. This careful management of environmental conditions helps prolong the lifespan of these irreplaceable cultural objects.

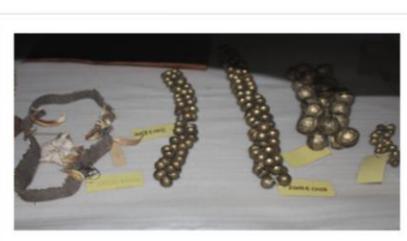
Among the collections in the Ethnology Storage Unit are artifacts related to traditional healing practices of the Visaya community, particularly from Papar and Membakut. The Visaya people, like many other indigenous groups in Borneo, continue to practice ancestral healing traditions and uphold beliefs in both benevolent and malevolent spirits. These artifacts provide insight into their medical and spiritual heritage. The collection also includes human skull specimens, known as Bangkawan among the Kadazan Dusun, as well as ritual objects used by the Bobohizan, the spiritual leaders of the Kadazan Dusun people. Many of these items were obtained through donations or purchases. According to Mr. Jaimol, it is customary for previous custodians of these sacred objects to perform cleansing and purification rituals before surrendering them to the museum. This practice acknowledges the spiritual significance of the artifacts while facilitating their transition into museum care.

Beyond indigenous cultural artifacts, the Ethnology Storage Unit also houses a collection of colonial-era cannons, reflecting the military and historical influences of Sabah's past. These cannons, which vary in design and craftsmanship, were recovered through fieldwork across Sabah and are now stored in Ethnology Storage 1, where they are carefully maintained for future research and conservation. Meanwhile, Ethnology Storage 2 serves as a repository for traditional textiles and personal adornments from Sabah's diverse ethnic groups. The number of recognized ethnic groups in Sabah varies, with official records listing 32 ethnic groups, while the

Sabah National Registration Department acknowledges 41 ethnic groups. However, in 2007, the Sabah Museum recorded a total of 72 ethnic groups, reflecting the extensive cultural diversity within the state.

The preservation of traditional textiles and accessories in Ethnology Storage 2 follows a meticulous process to ensure their longevity. Each textile or adornment is stored in large drawers and wrapped in soft white paper to protect them from fungal growth and bacterial contamination. Additionally, each storage drawer is labeled with a catalog entry or registration code, ensuring efficient artifact management and facilitating conservation efforts. Through these systematic preservation techniques, the Sabah Museum plays a vital role in documenting, safeguarding, and maintaining the material culture of Sabah's indigenous communities. This careful stewardship ensures that future generations can continue to study and appreciate the rich heritage and traditions that define the region's diverse cultural landscape.

**Table 1:** Ethnology Storage in Sabah Museum (Sources: Fieldwork, 2015)

| Artefacts   | Details  |
|---|--|
|   | <p>Artifacts used by the Visaya (or Bisaya) ethnic group in Sabah, particularly in the Membakut and Papar regions, hold significant ritual and healing purposes in traditional practices. These cultural objects serve as spiritual mediums, bridging the connection between humans and supernatural forces. Their role extends beyond material function, embodying indigenous knowledge systems, beliefs, and sacred traditions that have been passed down through generations.</p> |
|  | <p>The Sindavang is a sacred ritual object crafted from thin sheets of copper, shaped into small bells. It features perforations that allow it to be strung together using cords, which are then attached to a handle traditionally made from turtle bone or pig bone. This object plays a vital role in the spiritual practices of the Bobohizan, the ritual specialists of the Kadazan Dusun community. During ritual ceremonies, the Sindavang is shaken to produce a</p>         |

|   |  |
|---|--|
|   | <p>distinct sound, believed to ward off malevolent spirits. As the Bobohizan chants sacred mantras, the rhythmic ringing of the Sindavang serves as both a spiritual signal and an invocation tool. It is thought to attract benevolent spirits to the ritual site, inviting them to partake in the offerings prepared for the ceremony. The Sindavang's role extends beyond its physical form, embodying the indigenous cosmology and spiritual practices of the Kadazan Dusun people, ensuring a connection between the human and supernatural realms.</p>   |
|   | <p>Inavol Rungus is a traditional handwoven cotton textile adorned with human, floral, and animal motifs, crafted by the Rungus people of Kudat, Sabah, Malaysia. This textile is deeply embedded in the Rungus community's cultural identity, serving both ceremonial and everyday purposes. Characterized by its rich colors and symbolic patterns, Inavol Rungus incorporates at least four primary colors: black, red, yellow, and white. Among these, black is the dominant color, as it is regarded as a symbol of power and authority in Rungus beliefs. The intricate motifs woven into the fabric represent the community's connection to nature, spirituality, and ancestral heritage.</p> |
|  | <p>This image showcases a storage facility for traditional woven baskets and other handcrafted items, likely part of an ethnology collection in a museum or cultural centre in Sabah, Malaysia. The</p>  |

|  |  |
|--|--|
|  | <p>baskets are neatly arranged on metal shelves, preserving various styles, shapes, and designs unique to Sabah's indigenous communities. The baskets appear to be made from natural materials such as rattan, bamboo, and pandan leaves, reflecting the traditional craftsmanship of Sabah's ethnic groups, including the Kadazan-Dusun, Murut, Bajau, and Rungus. Many of these woven items serve functional purposes such as fish traps, storage containers, winnowing trays, and hats.</p> |
|--|--|

#### **4.4 Challenges in Managing Artifacts and Cultural Specimens at the Sabah Museum**

Since its establishment, Sabah Museum has relied heavily on foreign experts for research, excavation, and conservation. Despite operating for over 50 years, the institution continues to depend on international researchers such as Tom and Barbara Harrison and Peter Bellwood for artifact analysis. This reliance stems from a shortage of local experts, underscoring the need to enhance training programs and academic collaborations to build local capacity and reduce dependence on external institutions.

Archaeological studies in Sabah face cultural taboos and beliefs held by local communities. Some groups believe that disturbing ancient burial sites may bring misfortune, posing challenges to excavation efforts. Additionally, the looting of underwater artifacts by treasure hunters threatens the preservation of Sabah's historical heritage. To address these issues, Sabah Museum must strengthen public awareness campaigns on the significance of archaeological research and reinforce law enforcement measures against illegal excavations.

A critical challenge faced by Sabah Museum is the lack of a fully equipped conservation laboratory and essential preservation tools. Consequently, many artifacts must be sent to institutions such as Universiti Sains Malaysia (USM) for proper analysis and restoration. Outdated conservation methods, including the use of formic acid on metal artifacts, have also caused damage. Therefore, investment in modern conservation equipment and specialized training is imperative to ensure artifacts are preserved according to international standards.

Despite rapid advancements in museum technologies worldwide, Sabah Museum still employs traditional methods for documenting and analysing artifacts. The absence of modern techniques such as carbon dating, spatial analysis, and digital archiving has forced the museum to rely on external institutions for in-depth analysis. By investing in modern technology, the museum can conduct independent research, enhance efficiency in artifact management, and align itself with global best practices in museology.

Sabah's rich ethnic diversity presents another challenge in cultural documentation. The increasing number of sub-ethnic groups seeking recognition as distinct entities has led to inconsistencies in ethnographic records, complicating systematic artifact categorization. To address this, Sabah Museum must collaborate with local scholars, cultural organizations, and indigenous communities to ensure more accurate and structured ethnographic documentation. Establishing a standardized classification framework will not only preserve Sabah's diverse cultural heritage but also facilitate more effective curation and representation of its communities in the museum's collections and exhibitions.

## **5. DISCUSSION AND CONCLUSION**

The acquisition of artifacts at the Sabah Museum occurs through donations, field collections, and purchases. The manuscript highlights instances where families, such as the Fedrick family, donate heirlooms to ensure their preservation. Additionally, significant collections such as the Pamol Collection and Woolley Collection provide valuable historical insights. While the museum has successfully preserved cultural artifacts through systematic acquisition, categorization remains a challenge due to the evolving recognition of new sub-ethnic groups. This issue complicates ethnographic classification and requires a more structured documentation system. A standardized framework for artifact classification, developed in collaboration with indigenous communities and researchers, would improve the museum's documentation processes. Digital archiving and interactive databases could further enhance accessibility and accuracy.

One of the major concerns in conservation is the museum's reliance on traditional techniques and external institutions such as Universiti Sains Malaysia for artifact restoration. The lack of a fully equipped conservation laboratory and the continued use of outdated conservation methods further hinder the preservation of artifacts. While temperature-controlled storage for textiles is a step in the right direction, there is an urgent need for modern conservation technologies and infrastructure. Investment in conservation laboratories and staff training in contemporary preservation methods would enhance the longevity of artifacts. Additionally, the adoption of eco-friendly conservation practices would align the museum with international sustainability standards.

Despite operating for over 50 years, the Sabah Museum continues to depend on foreign experts for research, excavation, and artifact analysis. This reliance, while beneficial for knowledge exchange, limits the museum's ability to conduct independent research and conservation efforts. Establishing partnerships with local universities for specialized museology and conservation programs would empower local researchers. Government support in funding research projects and training programs is also necessary to build expertise within Sabah. Strengthening these academic collaborations would reduce dependency on external institutions and foster a self-sufficient research environment.

Community engagement remains a critical aspect of museum curation, yet the manuscript highlights limited public participation in museum activities. Cultural beliefs sometimes act as barriers to archaeological studies and conservation efforts, making it challenging to obtain community cooperation. The lack of awareness and socio-economic barriers also restrict access to museum resources and education. To enhance inclusivity, the museum should implement community-based exhibitions where local voices shape curatorial content. Digital platforms and outreach programs in rural areas could further democratize access to heritage knowledge. Engaging with indigenous communities through participatory research and interactive exhibitions would strengthen the museum's role as a cultural hub.

In terms of technological advancements, the manuscript indicates that the museum still relies on traditional documentation methods, lacking advanced techniques like carbon dating, spatial analysis, and digital archiving. The absence of modern technologies limits the museum's ability to accurately date and analyze artifacts, affecting research quality. By incorporating advanced documentation technologies, such as 3D scanning and blockchain-based provenance tracking, the museum can ensure accurate artifact records and facilitate global research collaborations. The integration of modern technology would also improve conservation efforts, ensuring that artifacts are properly preserved and studied in a non-invasive manner.

Sustainability in museum practices is an essential factor in long-term conservation efforts. The manuscript briefly mentions the museum's role in promoting environmental awareness through its Natural History section but does not elaborate on sustainable conservation practices. While the museum acknowledges environmental concerns, it lacks a structured approach to sustainable artifact conservation. The adoption of sustainable conservation practices, such as using non-toxic materials and implementing controlled environments for artifact storage, would improve the museum's ecological footprint while ensuring long-term preservation. Furthermore, integrating traditional environmental knowledge from indigenous communities could provide valuable insights into sustainable heritage conservation.

The Sabah Museum is a key institution in the preservation of Sabah's cultural heritage. However, challenges related to conservation, expertise development, community engagement, and technological advancement hinder its full potential. Addressing these issues through structured documentation, investment in conservation facilities, local capacity building, and inclusive curatorial practices will ensure that the museum remains relevant and effective in the future. Strengthening research collaborations, embracing modern technology, and fostering sustainable conservation methods will further enhance the museum's ability to protect Sabah's rich cultural history for future generations.

## **ACKNOWLEDGEMENT**

I would like to express our sincere gratitude to the staff of the Sabah Museum for their invaluable assistance in providing the information used in this research from 2014 to 2016. All photos and images included have been properly credited to their respective sources and are used solely for academic reference.

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