

Developing an Interactive Tourism Map for Gebong Memarong Traditional Village: A Community Service Initiative for Tourist Education and Cultural Preservation

Rizka Felly^{a)}, Muhammad Fahri, Andina Syafrina, and Helfa Rahmadyani

Department of Architecture, Faculty of Science and Engineering, Universitas Bangka Belitung, Bangka, Indonesia

^{a)}Corresponding author: rizkafelly@ubb.ac.id

ABSTRACT

The Bangka Belitung Islands Province possesses significant potential for tourism development, encompassing both natural and cultural attractions. One of its prominent destinations is the Gebong Memarong Traditional Village, located in Gunung Muda Village, Belinyu District, which embodies the architectural characteristics and cultural heritage of the indigenous Lom People. Despite its potential, the area lacked an information facility in the form of a tourist map capable of providing comprehensive guidance and interpretation for visitors. Through the 2025 Community Service Program, the implementation team initiated the design and realization of an Interactive Tourist Map Information Board, strategically installed at the entrance of the Gebong Memarong Traditional Village. The program was carried out in four major stages: (1) preparation and coordination, (2) field survey and data collection, (3) tourist map design, and (4) finalization and installation of the information board. The program involved a team of nine members working over a period of three months to design and install a 841 x 1189 mm (A0) interactive map displaying information in Lom, Indonesian, and English languages. The interactive map features detailed information on site layout, facilities, and the cultural functions of each memarong (traditional house). The results demonstrate that the presence of the information board not only enhances visitor accessibility and interpretation but also contributes to educational outreach, cultural preservation, and the sustainable development of local wisdom-based tourism in the Gebong Memarong Traditional Village.

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INTRODUCTION

Bangka Belitung is one of the provinces that has a variety of tourist attractions, both natural and cultural. (Bhudiarty, 2019; Fatimah et al., 2021). Based on data from the Badan Pusat Statistik (BPS) of the Bangka Belitung Islands Province, the tourism sector is one of the potential strengths of the Bangka Belitung Province. This can be seen from the increasing number of tourists and the availability of rooms in star-rated and non-star-rated hotels. (Badan Pusat Statistik Provinsi Kepulauan Bangka Belitung, 2024).

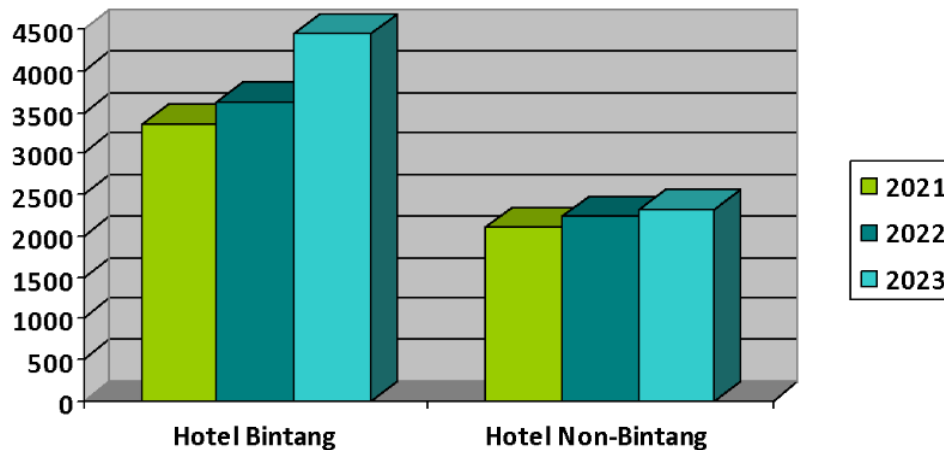


FIGURE 1. Graph of Room Availability in Star-Rated and Non-Star-Rated Hotels in Bangka Belitung Province from 2021 to 2023

Source: (Badan Pusat Statistik Provinsi Kepulauan Bangka Belitung, 2024)

Based on Figure 1 (Badan Pusat Statistik Provinsi Kepulauan Bangka Belitung, 2024), the availability of rooms in star-rated hotels in 2021-2023 has increased, with 3,346 rooms in 2021, 3,631 rooms in 2022, and 4,445 rooms in 2023. This is also in line with the increase in room availability at non-star-rated hotels, where in 2021 there were 2,113 rooms, in 2022 there were 2,244 rooms, and in 2023 there were 2,307 rooms. This data shows the enormous potential of Bangka Belitung for tourism development in the province, both for nature and cultural tourism (Fatimah et al., 2021; Mashithoh et al., 2021).

Tourism development not only requires attractive destinations but also effective signage and wayfinding systems, which play a crucial role in enhancing visitor experience and accessibility (Gretzel, 2011; Harahap et al., 2024). In recent years, interactive tourism maps have become widely adopted in cultural and heritage tourism sites to support visitor engagement and promote digital tourism (Yang et al., 2025). Moreover, the use of multilingual information systems—such as trilingual maps or digital signage in local, national, and international languages—has proven essential in facilitating inclusive tourism, particularly in multicultural contexts (Zhao et al., 2025). Several case studies, such as the heritage villages in Yogyakarta (Indonesia) and Kyoto (Japan), demonstrate how digital mapping and multilingual interpretation enhance visitor navigation, accessibility, and cultural understanding (Avci & Akyol, 2023; Kade et al., 2024; Tanabe & Nakamura, 2025).



FIGURE 2. Gebong Memarong

One of the cultural attractions in Bangka Belitung Province is the Gebong Memarong Traditional Village (Figure 2) (Marwani et al., 2023). This village is located in Air Abik Hamlet, Gunung Muda Village, Belinyu District, Bangka Belitung Island Province (Direktorat Kepercayaan Terhadap Tuhan Yang Maha Esa dan Masyarakat Adat. Direktorat Pendidikan Kebudayaan. Kementerian Pendidikan Kebudayaan Riset dan Teknologi, 2022). 'Gebong' means village, while 'Memarong' means house. The Gebong Memarong Traditional Village is an authentic representation of the traditional houses of the Lom people. The Lom people are the oldest indigenous community living in Mapor Village (Banks, 1993).

As time goes by, the number of Memarong has decreased, so preservation efforts are needed to protect this cultural heritage. In 2022, PT Timah Tbk, in collaboration with the Mapor Customary Institution (Lembaga Adat Mapor) and the local community, built seven Memarong units in the Gebong Memarong Traditional Village. The seven Memarong units consist of one unit for the community hall, one Memarong Mak unit (Men's House) that functions as a gallery, one Memarong Nuk unit (women house) that functions as a museum, and four Memarong Nuk units (women's houses) that function as homestays. This initiative not only aims to preserve culture (Bulu & Listyorini, 2024), but also to develop the area as a cultural tourism destination and a space for local cultural education for the wider community who want to deepen their understanding of Gebong Memarong and the culture of the Lom people (Marwani et al., 2023).

The development of Gebong Memarong Traditional Village as a tourist village (cultural tourism) also offers various educational packages, such as training in traditional Mapor weaving, traditional cuisine, Campak Darat dance performances, Mapor martial arts, and various traditional games. In addition, the 'Nuju Jerami' tradition, which is a ritual of gratitude after the rice harvest, is a unique cultural attraction for tourists (Kurniati & Nodyanto, 2022).

Problems and Potential

Gebong Memarong Traditional Village has been operating as a tourist village since 2023. However, there is still one unresolved issue. Based on interviews with Mr. Asih (Head of Mapor Customary Institution) and Mr. Bukim (Manager of Gebong Memarong Traditional Village), the problem in Gebong Memarong is that there is still no information board in the form of an interactive tourist map at the entrance to the Gebong Memarong area, which should be available for tourists to obtain initial information about Gebong Memarong (Figure 3). Tourism maps not only provide information about the

geographical location of a place, but can also contain information about tourist attractions and tourism infrastructure (Jancewicz & Borowicz, 2017).



FIGURE 3. Discussion with Mr. Bukim (Manager of Gebong Memarong Traditional Village)

A comprehensive tourism map in the traditional village of Gebong Memarong is very important in order to improve accessibility, circulation, and tourists' understanding of the architecture of Gebong Memarong and its cultural potential. Through this Community Service program, information boards in the form of interactive tourist maps can be realized. The information provided includes: the location of Gebong Memarong, the Gebong Memarong block plan, information guides, and the facilities available at Gebong Memarong. This interactive tourist map information board is designed in three languages, namely the Lom language, Indonesian, and English. This effort will make it easier for both local and international tourists to explore and appreciate the cultural wealth of the Lom people in Mapor Village, while also encouraging local economic growth through an increase in tourist visits.

Despite the potential of Gebong Memarong as a cultural tourism site, there remains a lack of research and practical examples of how interactive, multilingual tourism maps can be effectively integrated into traditional village contexts in Indonesia. This study addresses that gap by developing and implementing a trilingual (Lom–Indonesian–English) interactive map for the Gebong Memarong Traditional Village, designed to enhance accessibility, visitor orientation, and cultural appreciation.

Thus, this community service program aims to create an information board in the form of an interactive tourist map in the traditional village of Gebong Memarong. This interactive tourist map is not only useful as a navigation tool for tourists but also serves as an important strategy in efforts to preserve traditional architecture and culture, as well as improve the well-being of the local community (Puspitasari & Matfuqin, 2024).

METHODS

The method of implementing the community service program for the Creation of Interactive Tourist Map Information Boards (Panagiotopoulos & Karanikolas, 2014) is divided into several stages, namely:

Initial/Preparation Stage

In the initial/preparation stage, the team coordinated and identified the problems occurring in the Gebong Memarong Traditional Village. This coordination was carried out between the community service team, the Mapor traditional institution, and the managers of the Gebong Memarong traditional village. The methods used in this stage were:

- Direct observation in the field
- In-depth interviews with the Mapor traditional institution and the managers of the Gebong Memarong traditional village, particularly regarding the names and functions of each memarong.

FIGURE 4. Observation and Interview in Gebong Memarong

Survey and Field Data Collection Stage.

During the survey and field data collection stage, the team conducted activities to obtain block plan data/aerial views (Sjaf et al., 2022) of the Gebong Memarong traditional village area, measured the dimensions/sizes of seven (7) memarong, and collected information in the form of facilities and information that needed to be conveyed on the tourist map information board. The methods used in this stage are:

- Operating a drone to obtain spatial data from above in order to compile a block plan of the traditional village of Gebong Memarong
- Direct field measurements to obtain data on the dimensions of each memarong
- Documentation to obtain existing photos and videos
- Interviewing the management regarding the facilities owned by Gebong Memarong and the information that needs to be conveyed on the tourist map information board so that tourists/visitors can obtain preliminary information before entering Memarong. The community service team also recorded translations in the Lom language, considering that the information board was made in three (3) languages, namely Lom, Indonesian, and English.

Tourist Map Information Board Design Stage.

At this design stage, the team designed a block plan for the traditional village of Gebong Memarong and then arranged the block plan on the information board. In addition, the team also conveyed information in the form of supporting facilities and other information on the interactive tourist map using the Lom language, Indonesian, and English. After the design of the tourist map information board was completed, the community service team sought input from the Mapor Customary Institution and the managers of the Gebong Memarong traditional village. If the design was approved, the community service team would print the design in 841 x 1189 mm (A0) format. Adobe Photoshop was used as the primary software for designing the interactive tourist map information board.

Finalization Stage: Presentation and Installation of the Interactive Tourist Map Information Board.

This stage was the final stage of the community service process. The community service team will present the final results of the information board: the interactive tourist map to the Gebong Memarong

management. Additionally, the community service team will install the information board at the entrance of Gebong Memarong so that it can serve as initial information for tourists.

The implementation of this community service program was structured into several stages to ensure systematic and measurable progress in achieving its objectives. Each stage was designed to address specific activities, ranging from preparation, data collection, design development, to finalization (Table 1). The following table presents the timeline and duration of each stage conducted during the three-month implementation period.

TABLE 1. Timeline of Community Service

No.	Stage	Description	Duration
1	Stage 1	Initial/Preparation Stage.	5 weeks
2	Stage 2	Survey and Field Data Collection Stage.	3 weeks
3	Stage 3	Tourist Map Information Board Design Stage.	2 weeks
4	Stage 4	Finalization Stage	2 weeks

This community service program was carried out by a team of nine members, consisting of four lecturers and five students serving as assistants. All team members specialize in the field of architecture, which is closely related to the topic of this program. Each member was responsible for completing specific tasks across all stages of the activity. The program was implemented from July to October 2025, with a total duration of three months.

RESULTS AND DISCUSSION

This community service activity has completed a program to create an information board in the form of an interactive tourist map in the Gebong Memarong Traditional Village as an effort to educate tourists.

Based on Figure 5, the service team displayed an aerial view of the Gebong Memarong area using a drone as a medium to capture the existing conditions of this traditional village. In general, the infographic shows that the main entrance to Gebong Memarong is located in the western part of the area, indicated by number 1. Furthermore, on the west side, there is also a parking area for motorcycles, cars, and buses, indicated by number 2. Supporting facilities such as toilets and the Mapor Endemic Plant Garden are also located near the main entrance and parking area. The main area consists of seven (7) traditional buildings. To the east is a community hall that functions as a meeting hall and a place for traditional activities (indicated by number 7). To the north are Memarong Mak (Men's House), indicated by number 5, and Memarong Nuk (Women's House), indicated by number 6. The Memarong Mak (Men's House) is a prototype of a Mapor house. The walls of the house are straight. This building is used as a gallery. Meanwhile, the Memarong Nuk (Women's House) has a different shape from the Memarong Mak (Men's House). The shape of Memarong Nuk (Women's House) is characterized by slightly larger side walls (having a belly). The Mapor people interpret the existence of these two memarong as a symbol of life that is always paired and a hope for harmony and longevity in marriage (Kurniati & Nodyanto, 2022). Across from Memarong Mak and Memarong Nuk are four buildings that function as lodging areas. Thus, tourists can enjoy their time at Kampong Adat Gebong Memarong (Gebong Memarong Traditional Village) while enjoying the educational facilities offered, such as training in traditional Mapor weaving, traditional cuisine, Campak Darat dance performances, Mapor martial arts, and various traditional games.



FIGURE 5. Information Board Results: Interactive Tourism Map of Gebong Memarong Traditional Village

The installation of these information boards has been positively received by managers and traditional leaders. Based on qualitative feedback from Mr. Bukim (representative of the Mapor tribe), these maps are considered very helpful in reducing confusion among newly arrived tourists. Previously, tourists often asked directly about the location of facilities or the meaning of each memarong. The presence of this map helps tourists get a general overview independently, allowing managers to focus more on other educational activities (Figure 6).



(a)



(b)

FIGURE 6. (a) Installation of Information Board: Interactive Tourist Map at the Gebong Memarong Traditional Village near the main entrance, (b) Tourists access the interactive information board: Interactive Tourist Map before entering Gebong Memarong

The use of three languages (Lom, Indonesian, and English) on the map is an important implementation in the context of multicultural tourism, in line with the findings of (Jancewicz & Borowicz, 2017) and (Zhao et al., 2025), which emphasize the importance of multilingual information accessibility. This not only facilitates foreign tourists but also demonstrates efforts to preserve the Lom language itself, which is part of the intangible cultural heritage.

More than just a wayfinding tool (Gretzel, 2011; Harahap et al., 2024), this map serves as a primary educational medium. It contains philosophical information, such as the difference between Memarong Nuk, which symbolizes harmony, and Memarong Men (prototype). This information directly addresses the program's goal of educating tourists about the architecture and local wisdom of the Lom tribe, transforming their visits from mere recreation into learning experiences.

The implementation team faced challenges in accurately translating Lom indigenous terminology into English without losing its philosophical meaning. The limitations of this program are that the evaluation is still qualitative. In addition, the installed map is still static. Therefore, as mentioned in the conclusion, future development will focus on integrating QR codes to provide more in-depth digital information.

CONCLUSION

The Community Service Program implemented in Gebong Memarong Traditional Village, Gunung Muda Village, Belinyu District, Bangka Belitung Islands Province, has successfully created an interactive tourist map. This activity is a tangible contribution to supporting the preservation of the traditional architecture and culture of the Lom people while increasing the cultural appeal of tourism in the area.

The interactive tourist map is designed to contain comprehensive information about the location, block plan of the area, supporting facilities, and the function of each memarong, and is presented in three languages—the Lom language, Indonesian, and English—to expand the reach of information for local and foreign tourists. The information boards are expected to make it easier for tourists to understand the spatial layout and cultural values of Gebong Memarong Traditional Village, while also serving as an educational tool to introduce the richness of local culture.

In addition to providing benefits in terms of information and education, this activity also has the potential to have a positive impact on improving the economy of the surrounding community through increased interest in tourism. Thus, this program not only contributes to the preservation of the cultural heritage of the Lom people but also supports the development of sustainable tourism in the Bangka Belitung Islands Province.

As a follow-up to this activity, the community service team plans to provide further assistance to the managers of Gebong Memarong Traditional Village and the Mapor Traditional Institution in terms of managing and maintaining the interactive tourist map information board so that it remains well-maintained and functions optimally. Additionally, in the future, a QR Code-based digital information system will be developed that is linked to an online platform providing information about the history, architecture, and cultural activities of the Lom people.

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