SUSTAINABLE SPATIAL SETTINGS OF KUALA KUBU BHARU

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Abstract

Cultural heritage landscapes present historical and cultural civilization signs and legacies in their environment. These landscapes are also considered necessary incentives to attract tourists. Cultural heritage conservation provides tools for reaching suitable solutions for sustainable development based on tourism. Subsequently, the significance of societal identity and way of life in the past was crucial to explaining the current cultural and social dynamic. Determining the value of heritage is especially important to plan the form of its protection, conservation, and contemporary use. The study aimed to assess and evaluate cultural heritage landscape conservation in sustainable spatial settings. This study used qualitative methods by field measurement/survey interview and site observation. The findings revealed that the cultural heritage landscape value presents historical and cultural civilization signs and legacies in the environment and landscape of the sustainable spatial setting of Kuala Kubu Bharu. This study hopes to help local authorities and related agencies restructure baseline data in planning for sustainable spatial settings and appropriately develop and maintain their historical values and natural ecosystem.

Keywords: Cultural heritage, landscapes, conservation, spatial settings, sustainable

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INTRODUCTION
A cultural landscape is a spatial form and the physical setting of the built environment, shaped and created by the society's shared beliefs and activities. It comprises both the built and natural environment that must be studied simultaneously in a research procedure (Thompson & Kent, 2017). Similarly, according to Rapoport (1990), the cultural landscape also comprises the dimension of spatial and temporal aspects in the settlement establishment process. For instance, Antrop (2005) stated that the study of cultural landscapes helps enhance the decision-making process for future urban development planning using the explanation of the local lifestyle and the pattern of the cultural attributes which change the physical settings of the local areas.

Cultural heritage landscapes present historical and cultural civilization signs and legacies in their exceptional surroundings and landscapes, which are considered today as necessary incentives to attract cultural tourists (Behbahani, Pajouh & Bostanban, 2017). A cultural landscape is a physical representation of how humans have related to and transformed their environment; it highlights the significance of the building form, natural features, and the interaction between the two (Misni & Aziz, 2015; Pajouh, Bakhsh & Mohammadi, 2013; Tengberg et al., 2012). They added heritage values and cultural identity to two out of the six categories of cultural landscape services that are recognized through many assessments. The others are spiritual services (sacred, religious, or other forms of spiritual inspiration derived from ecosystems), motivation (use of natural motives or artifacts in art, folklore, etc.), aesthetic appreciation of wild and cultivated landscapes, as well as recreation and tourism. Overall, culture needs to be conserved to maintain a social life sustainably.

Spatial Settings
Spatial is used to describe things relating to areas in the context of sustainable development of the site. Tangible and intangible heritage within the landscape help maintain meanings and a sense of collective identity, emphasizing the intimate linkage between cultural heritage and identity (Pătru-Stupariu, Pascu & Bürgi, 2019). The setting is both spatial, either place or space, and temporal. A set can be scenery against which characters exist and move, or represent a symbolic force acting upon the feelings and reinforcing narrative elements (Joshua, 2018). Besides that, different aspects of spatial features contain parts of physical and cultural interactions, namely, contextual factors of social change; cultural aspects of settlement; the conceptualization of cultural landscape, and the taxonomy of cultural landscape from the perceptual theory (Shen & Chou, 2021; Pajouh et al., 2013). Cultural identities are highly associated with the dynamic of the cultural landscape. Spatial settings of newly developed urban areas should consider the local livelihood and residents' inherited pattern of belief and ritual
practice reflected upon the planned cultural landscape (Nunta & Sahachaisaeree, 2010).

Cultural heritage landscape (CHL) conservation
According to Pajouh et al. (2013), several cultural features may be found within a cultural heritage landscape. The region of villages in different climates and geography has recognized some of these features and used various tools to protect them and apply significance. The significance of each CHL attribute/indicator will be evaluated based on three-pronged approaches (Waterloo, 2013). A CHL’s indicators help contextualise, cluster, and connect the individual cultural heritage resources.

<table>
<thead>
<tr>
<th>No.</th>
<th>Attributes/indicators</th>
<th>Sustainable Cultural heritage features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Views sheds</td>
<td>A line-of-sight from a specific location for landscapes and as a sequence of views/panorama from a given vantage point</td>
</tr>
<tr>
<td>2.</td>
<td>Heritage Conservation Districts (HDC) Making</td>
<td>HCD is to protect buildings. Any changes to property within a heritage conservation district require a permit from the local municipality.</td>
</tr>
<tr>
<td>3.</td>
<td>Significant Valley lands</td>
<td>Valley lands are significant due to their function as early transportation corridors, sources of fresh water, and places where businesses and settlements formed.</td>
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<tr>
<td>4.</td>
<td>Human Heritage Routes</td>
<td>Historic trails, historic waterways, historic highways, or scenic driving routes</td>
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For this study, CHL conservation provides a means to conserve groupings of cultural heritage resources with greater heritage significance than their constituent elements or parts. The cultural heritage landscape conservation features for sustainable development solutions based on spatial settings can be seen in Table 1. A CHL has property-based cultural heritage resources and attributes that may not be linked to real property (i.e., views of and vantage points, circulation or street networks, land use patterns, architectural details, natural features, and vegetation) (Yusof et al., 2007). Pajouh et al. (2013) listed in Table 1 the attributes/indicators that are suitable for collecting data in KKB cultural areas. As a result, the conserved CHL is more valuable than the sum of its parts (Waterloo, 2013). Similarities of the existing attributes located in KKB needed to be surveyed and evaluated. Therefore, this study focused on determining and evaluating the spatial organisation of landscape about the functional behavioural settings of the local community assessed and integrated into spatial and physical planning. Gabriel (2020) stressed that a heritage town such as KKB is one of the best nominees to represent the whole cultural landscape of the region. This kind
of setting has architecture, texture, and lifestyle, which was built in a particular period. Hence, it is known as heritage.

Sustainable development context for cultural heritage and natural resources
Sustainable development is a development that meets the needs of the present generation without compromising the abilities of future generations to meet their own needs (Throsby, 2002). The principles of sustainability have already been acknowledged in economic development related to resource use through a broadened concept of sustainable development including environmental, economic, social, and cultural aspects (Grazuleviciute, 2006). In a broader context, the role of cultural heritage becomes evident in the part of sustainable development (Loulanski, 2007). Historic buildings and cultural landscapes are elements that create a sense of belonging to a place. Moreover, cultural heritage is not only valuable to individuals who own its historic properties. It can also add value to the community's well-being and quality of life to reduce the effects of cultural globalisation and be an incentive for sustainable development (Misni et al., 2015; Grazuleviciute, 2006). Another essential role of cultural heritage in striving for sustainable development is its relation to resource productivity and economic development. Therefore, preserving cultural heritage is vital to sustainable development while demonstrating positive economic benefits.

METHODOLOGY
A qualitative method was employed to conduct this study. The field measurement/survey was carried out through site observations of cultural heritage landscape conservation in the context of sustainable spatial settings of KKB.

Area of Study
KKB is located in the Northern Part of Selangor in the Sub-District of Ampang Pecah under the Administration of Hulu Selangor District Council. The study area of KKB is in a strategic location, i.e., approximately 66 km from Kuala Lumpur, 21 km from Tanjung Malim, and 10 km from Rawang, as shown in Figure 1. KKB is naturally situated at the foothill of the famous Titiwangsa Mountain Range and is well known as one of the vital water catchment areas for the state of Selangor. The primary function of KKB is as an administrative centre, as all government buildings are situated in the main town area. The KKB still maintains its green physical characteristic, while residential quarters and various government institutions remain in the area’s urban character while preserving its heritage. In addition, KKB is also a transit point for visitors heading to Fraser's Hill. According to RKKBKKB 2025 (2016), the current population in KKB is 14,860 people, estimated to increase to 17,680 people at the end of the year planning 2025.
Site observation in shaping the cultural landscape

Site observation is defined as viewing and recording the actions and behaviours of the physical setting and community at KKB. In this study, the researcher adopted this method to determine the cultural landscapes that could be assessed and integrated into the spatial and physical setting, which are sensible and replicable procedures for collecting data (Chakravarty, 2021). During the site visit and fieldwork measurement and survey, photos, videos, and the current condition of the area were collected, measured, surveyed, and recorded in the research study as valid evidence of data collection on-site. The current situation is related to variables within cultural features in KKB, such as viewsheds, significant valley lands, heritage conservation district making, and human heritage routes. Referring to Pajouh et al. (2013), some areas involved with the cultural and spatial setting in KKB are close by and were evaluated using eight indicators and distinctions.
Semi-structured survey with targeted groups of respondents
A semi-structured survey was used in this study. It consists of several key questions that help to define the areas to be explained. It also allows the interviewer or interviewee to avoid pursuing an idea or response in more detail. The questionnaire survey was carried out to gather and compare three target respondents' groups with different perspectives, opinions, and knowledge from various experts, with a total of 32. The first respondent group consisted of qualified professionals and experts from various agencies related to the development and management of the KKB district. These agencies were Hulu Selangor District Council (Town Planning Department and Landscape Department) and Hulu Selangor District/Land Office (Community Leader Management Council/MKKK). Then, the second target respondent group was the stakeholders and local people of KKB. The last group involved those from the private sector and local tourist agencies relevant to the involvement of KKB's sustainable spatial setting with tourism activities.

Data Analysis
The present researcher conducted qualitative research by systematically searching and arranging observation notes or other non-textual materials that were accumulated to understand the phenomenon in KKB. The analysis of the qualitative data involved categorising the data, identifying significant patterns, drawing meaning from data, and subsequently building a logical chain of evidence. This method provided the initial impression and evidence of the current situation. It generally offered a list of site studies by analysing its resources and capabilities.

RESULTS AND DISCUSSIONS
The results of the KKB study area were based on the importance of preserving history and heritage in the context of sustainable spatial settings arrangement.

History of Kuala Kubu Bharu
KKB is a rebuilt city after the old town Kuala Kubu was destroyed in floods between 1883 and 1926. KKB has a high historical value based on the city's role in the past and its position as a gateway to Pahang. It has a clean, green, and airy feel to become the first Garden City in Malay Land (PESKUBU, 2016). The original town was Kuala Kubu and was well known for tin mining activities in Selangor (RKKBKKB, 2019). It used to be the fort of Raja Mahadi when he fought with Tengku Kudin during the Selangor civil war from 1868 to 1873. Unfortunately, this town was destroyed when the Kuala Kubu dam burst in 1883, killing 35 people (PESKUBU, 2016). After the tragedy, the British government decided to build a new town near the remains of Kuala Kubu.
The new town was named KKB, with Bharu meaning "new" in Malay. Residential houses have been developed since the 1980s in the previously abandoned old town of Ampang Pechah. The redevelopment of Ampang Pecah was a natural progression of the organic growth of the new township of KKB. Currently, the town of KKB has been identified as the Garden City, potentially to be appointed as a constituency interest at the national and international levels. The concept emphasises elements of urban landscaping, beautification, and security in urban areas. Visitors who come to KKB can experience the green and beautiful scenery against the backdrop of the hills and appreciate the historical effects.

Cultural Landscape Features of KKB
Pajouh et al. (2013) added four cultural features within a cultural heritage landscape: viewsheds, heritage conservation districts, significant valley lands, and human heritage routes. Below are features of analysis and tools available to strengthen the study of the cultural heritage landscape of KKB.

a. Viewsheds
The topography of KKB is toward the green mountains of the Titiwangsa range. The difference in altitude between the mountains sees the perspective and vista. KKB has an elevation of around 50 to 125 metres, and the height decreases towards the south. Following nature's law of gravity, water also descends from the mountain peaks to the lowest elevation in the area. The three rivers found in the study area are Kumbang, Kubu, and Kelempong. The topography is mostly flat in the middle except for Taman Bukit Kerajaan. The highest point is at the northwest of the site, which is 124 m in elevation and near the commuter station, while the lowest point is 56 metres at the quarters housing area.

b. Heritage conservation districts
To support the direction of KKB as the Areas of National Interest or World Heritage, it was recommended that the boundaries of the Special Area Plan 2025 have two control layers of conservation areas. According to UNESCO (2019), there are two proposed zones, core and buffer. IUCN (2011) also stressed that absolute determination of core and buffer zones is the most critical element in detailing the control mechanism development to protect the area's integrity. These are justifications for determining the location, historical interest, and development boundary. Indeed, heritage conservation districts, similar to cultural heritage landscapes, will protect buildings and the surrounding landscape, including their features in a contiguous way.
c. Significant valley lands
As for natural elements, the cultural heritage landscape is considered a necessary incentive to attract cultural tourists. The green environment, rich with flora and fauna, gives practical added value to KKB. Among the natural elements, the area around Sungai Selangor Dam towards the road to Fraser's Hill was given more focus. Based on the observation, the Selangor River Dam covers an area of over 600 hectares and has a storage capacity of over 235 million cubic metres. It is well known as one of the vital water catchment areas for the state of Selangor. The area offers tourism activities with natural elements rich in natural resources. The locations should apply conservation of cultural heritage landscapes in the context of sustainable development so that they can be preserved naturally for future generations.

d. Human heritage routes
According to the SSP of 2035, KKB Town has been categorised as the Sub-Regional Center. This is the third hierarchy of the Growth Center and Partial of Strategic Development of Selangor after the Country and the State Regional Center. From the context of the development zone of the existing state, KKB Town is part of the "Scenic Development Network" Selangor, from the Networking aspects region. The town is also the secondary transit centre connecting Selangor, Fraser's Hill, and Tanjung Malim, Perak. The cultural
heritage landscape provides an analysis of cultural heritage, and its content is linked to the concepts of landscape, heritage, and identity.

Urban form analysis considers three aspects of influence: natural, physical, and social consequences. These aspects can be classified into several components of town development. Tourism and recreation are most known because KKB is famous for outdoor spaces with natural features and historical structures. This sector can transform cultural values into economic ones. The area of KKB has been categorised into three for tourism; ecotourism, agro-tourism, as well as heritage and culture tourism. It produces new employment and wealth for the locals. Hulu Selangor District Council authorities can provide more facilities to attract more tourists to KKB. As for the policymakers, these can provide valuable information about the economic impacts, contributing to sustainably orienting strategic choices.

Figure 3: (i) – (ii) Scenic view of the Selangor River Dam, (iii) KKB is located at the foothill of the famous Titiwangsa Mountain Range, and (iv) The flight takes off for paragliding activities at Batu Pahat Hill.

Cultural landscape conservation in a context of a sustainable spatial setting
This analysis produced findings that were derived from an interview survey. The responses were analysed, focusing solely on presenting the gathered data in a meaningful way.
i) The understanding of cultural heritage landscape conservation in the context of sustainable spatial settings

The majority of the respondents, which stood at 90%, indicated that cultural heritage landscapes present a process of evolution in their form and component featuring exceptional surroundings and landscapes considered today as a necessary incentive to attract cultural tourists. Moreover, cultural heritage landscapes present a process of evolution in their form and components featuring exceptional surroundings and landscapes considered today as a necessary incentive to attract cultural tourists. These indicate that the respondents' understanding and perception of understanding Cultural Heritage landscapes in the context of sustainable spatial settings in KKB were at an excellent level. Meanwhile, in terms of heritage, almost all respondents (91%) thought that heritage elements should be preserved so that people know their roots and can maintain national identity and pride. This can be analysed through the respondents' understanding of realistic goals regarding the sustainable cultural heritage landscape. It is related to the nation's dignity and identity. Most respondents also felt that understanding the significance of heritage places is the most critical, which stood at 88%, as shown in Figure 4. This is because they acknowledged the importance of preserving the value of cultural heritage sustainably. In other words, the respondents were aware of their understanding of the goals and objectives of preserving their cultural heritage in KKB.

![Figure 4: The importance of Cultural Heritage Conservation in KKB](image)

The findings also revealed that identifying landscape factors such as aesthetics, recreation, culture, economics, education, and history is most important. Respondents' understanding of these factors can be identified through the majority of answers which stood at 63%. In addition, landscapes and features are important because they contribute significantly to sustainable well-being and quality of life, as shown in Figure 5.
ii. The sustainable cultural heritage landscape conservation in KKB

Figure 6 displays 18 respondents who agreed that tourism is the best activity in social-cultural spaces of sustainable spatial settings in KKB. On the other hand, 15 respondents mentioned that recreation and leisure are the best activities when coming to KKB. There are eight routine activities: shopping, trading, working, visiting, gathering, recreational/leisure, eating places, and tourism. Each respondent could choose five indicators representing a decision: strongly agree, agree, neither agree nor disagree, and strongly disagree. It was found that tourism had the highest rating and was highly recommended to be the potential tourism sector as a routine activity in the sustainable spatial settings of KKB. Recreation and leisure are also the second most recommended regular activities. However, shopping activities were disagreed with because the respondents wanted to maintain the area sustainably, as well as for it to remain peaceful and harmonious without any congestion and crowded places.

Based on Figure 7, 15 respondents revealed that they had access to choose the type of spatial patterns of cultural spaces and mostly considered the heritage trail of KKB. Almost all of the respondents, on average, agreed that all the listed cultural spaces are relevant to visit. Therefore, cultural spaces in KKB are historic towns generated by routine activities such as the dynamic socioeconomic, workplace, and neighbourhood activities. There are eight spatial patterns of cultural spaces: thoroughfare, pocket spaces between old shophouses,
KKB Art and History Gallery, Dataran KBB, KKB Hot Spring, Sungai Selangor Dam, KKB Golf and Country Club, and The Heritage Trail of KKB.

![Figure 7: Spatial patterns of cultural spaces in KKB](image)

Each respondent could choose five indicators representing a decision between strongly agree, agree, neither agree nor disagree, and strongly disagree. The analyzed data indicated that most tourists who come to KKB want to explore The Heritage Trail of KKB. Most spatial patterns achieved an average rating in the tourism assessment area, and it caters to local tourists and provides information, as well as history about the town itself. The activities were primarily cultural and educational. All types of spatial patterns of cultural spaces obtained an average rating, which should be improved in the future so that the town is livelier and more vibrant.

The cultural heritage landscape presents historical and cultural civilization signs and legacies in its particular environment and landscape, which is considered today as a necessary incentive to attract cultural tourists. Moreover, it also affects the response process in both cultural landscape changes and physical landscape in KKB. Hence, cultural heritage landscape conservation in KKB features on reaching suitable solutions for sustainable development based on spatial settings. Preserving the heritage is the community’s work towards the recovery of collective memory and identity. Through this cooperative effort, social cohesion is created. Finally, the maintenance of social harmony, which implies the recognition and respect for the differences in the cultural identity of each community, is a determining factor in the implementation of sustainable development of KKB.

**CONCLUSION**

Through eight indicators of CHL conservation of KKB, and four additional CHL features, the analysis of the activities, operations, and spatial setting systems were used in the site to be evaluated. Then, the study discussed features related to strengthening the cultural heritage landscape of KKB. A conclusion was drawn, i.e., the cultural heritage landscape in the sustainable spatial setting of KKB presents historical and cultural civilization signs and legacies in its environment and landscape. They are considered necessary incentives to attract cultural
tourists. Currently, the combination of historical elements and natural setting, together with the ecosystem of KKB provides a unique spatial set in which all the aspects fulfilled the characteristics of the cultural heritage landscape sustainably (Pajouh et al., 2013). Based on these spatial settings, KKB has a solid character to become the first Garden City in Malaysia.

Zoning protected area
In KKB, it is clear that the conservation of cultural heritage landscapes should be centred in the context of sustainable spatial settings. Besides, it presents the cultural identity, such as norms, functions, social beliefs, social structures, and community economics, which formed a cultural landscape as heritage in time with those involved with cultural landscape indicators. In the future, to sustain the study area, some measures must be taken by looking at the effectiveness of spatial settings that impact the community.

Figure 8: The core and buffer zones for the cultural heritage spatial setting of KKB

Figure 8 illustrates the recommended zoning area for KKB. The zoning could be managed into two zones: core and buffer zones. Based on the overall findings, it was found that KKB has a high potential to be a great example of a historical town with rich cultural landscape resources. These crucial aspects must be considered and divided into the central historic area as a core zone and protected by a buffer zone. These two elements (man-made and natural) are to be
considered in determining the buffer boundary to ensure that the future planning is not contradictory and its integrity as a Garden City has not interfered. The spatial aspects indicated that KKB has many potential areas to be promoted to achieve a balance between the district and the surrounding area. The town of KKB should be conserved as it was first implemented as the Garden City in Malaysia and a starting point for Town and Country Planning in Malaysia. Any new development has already been mentioned in the Special Area Plan of KKB, especially in the core and buffer areas. They should not be disturbed due to the identity, and uniqueness of the history and images of the Garden City of KKB. Scenic corridor control is intended to maintain a view of the existing heritage in KKB Town, including the tops of the cities of the surrounding hills, historical monuments, and heritage buildings. Finally, vista retention and protection scenery are essential to maintain:

1. Self-orientation, by keeping in mind particular and unique characteristics,
2. Distinguish a place or area from the others, and
3. Enhance the unique character of KKB as a garden town.

Moreover, it also affects the response process in both the cultural landscape changes and the physical landscape in KKB. Hence, cultural heritage landscape conservation features are suitable solutions for sustainable development based on spatial settings.

REFERENCES


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