

Research article

Revitalizing an Urban Forest Park in Surakarta

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Abstract.

Balekambang City Park is one of the tourist attractions in Surakarta City. This park is unique because it is a tourism forest located in the middle of the city. This part of the city was revitalized in 2007 after some parts, such as the urban forest, were damaged due to neglect from the local Government and park managers. Now, in 2022, another revitalization process is needed, as the park has once again fallen into poor condition and the urban forest has been closed. This park has considerable tourism potential because it also plays an essential role in environmental sustainability. The present study aimed to describe, design and analyze a revitalization effort for Balekambang City Park to maximize its potential. Qualitative descriptive methods were used.

Keywords: Tourism, Balekambang City Park, Urban Forest

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1. Introduction

This topic was chosen because we were interested in improving the condition of Balekambang City Park in Surakarta City. Some parts of the park, such as the urban forest, were damaged due to the lack of attention from the local government and park managers. The park holds the potential as a tourism object. If the park is developed well, it will add value to Surakarta City since it has few natural attractions. Domestic and foreign tourists have to go to Karanganyar Regency, about 45 minutes from Surakarta City, to explore natural attractions. Thus, we proposed revitalizing Balekambang City Park, especially its urban forest, so tourists do not need to go far to other areas to enjoy natural attractions. Surakarta City, however, is famous for its cultural tourism. Balekambang City Park also provides cultural tourism, such as wayang orang shows, traditional dance performances, and indoor and outdoor puppet shows. Indoor performances are performed at the building where wayang orang shows are performed. Outdoor performances can be performed at the special outdoor venue that has been completed with stands or seats for viewers [1].

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Apart from its cultural potential, Balekambang City Park also has educational potential. This park has an urban forest with various plants, such as weeping paperbark, pine, and other plants [2]. In addition, there are also some interesting animals such as muntjac, deer, geese, and many others. If used and managed properly, Balekambang City Park can be a place and a means of educating the public about several types of flora and fauna and their functions. Based on the explanation above, this study aimed to maximize the potential of Balekambang City Park to add some positive impacts for the government, managers, and community.

Preservation of the urban forest in Balekambang City Park, Manahan Village, Banjarsari District, Surakarta City is one of the efforts to revitalize natural resources, especially soil, water, and vegetation. Efforts to revitalize urban forests need to be carried out because urban forests provide many benefits for the environment and the community.

Based on the background, the research problem is: "What efforts must be made to revitalize the urban forest in Balekambang City Park?" We would explore the inhibiting and supporting factors of urban forest revitalization efforts as a foundation in planning and implementing the revitalization effort. After the revitalization, the government, related parties, and the community must take maintenance measures to support the sustainability of the urban forest and avoid it being neglected again.

According to Danisworo, revitalization is an effort to revitalize an area or part of a city that was once vital but then experienced a decline (degradation). Revitalization comes in two scales, macro and micro. The process of area revitalization includes the improvement of physical aspects, economic aspects, and social aspects. The revitalization approach must recognize and utilize the potential of the environment (history, meaning, uniqueness of the location, and image of the place). Ministry of Settlement and Regional Infrastructure of the Republic of Indonesia states that revitalization is a series of efforts to revive areas that tend to stop developing, increase the strategic and significant vitality values of areas with high potential, and/or control disorganized areas. From the above definition, it can be concluded that revitalization is an effort to recycle to revitalize the primary function, or in other words, returning a place to the vitality and the primary function[3]. The Minister of Public Works and Public Housing, Basuki Hadimoeljono, said that his ministry would start working on revitalizing Balekambang City Park, Surakarta, Central Java, to become the center of Javanese culture in 2022.

The main objective of this research was to direct and restore the function of recreation and cultural tourism in Balekambang City Park through the revitalization of urban forests. The other purpose was to develop and formulate a Planning Program for the park's utilization as an arts and cultural center and botanical, educational, and recreational

park. Meanwhile, this research would be useful in providing input and direction to restore the functions of recreation, education, and cultural arts in Balekambang City Park, which later could be used as planning recommendations for the regional government and interested parties and contribute to tourism sector development.

2. Method

This research was conducted at one of the tourist attractions in Surakarta City, namely Balekambang City Park, located on Jl. Balekambang Number 1, Manahan, Banjarsari District, Surakarta City, Central Java 57139. This location was chosen because the park was poorly managed and the suboptimal use of its potential, such as land use, urban forest management, and cultural and tourism potential. These factors made Balekambang City Park less attractive to tourists and the people of Surakarta City.

2.1. Research Types and Approach

This research aimed to describe, analyze, and design an update or revitalization for Balekambang City Park to maximize the existing potential. This study employed a qualitative descriptive method. According to [4], qualitative descriptive analysis is used to analyze, describe, and summarize various conditions and situations from the various data collected, from interview or observation results, about the studied problems. This method helps research an object, with the researcher acting as the key instrument. Data are collected through triangulation (combined) techniques, which will be analyzed inductively or qualitatively [5]. Instead of generalization, the results of qualitative research put an emphasis more on meaning. Meanwhile, according to [6], qualitative descriptive analysis is an analytical method based on post-positivist philosophy, which is used to examine the condition of natural objects, where the researcher is the key instrument. Qualitative research emphasizes meaning rather than generalization [7].

2.2. Data and Data Types

1. *Primary Data*

Primary data is a source of research data that directly provides data to data collectors and not through intermediary media [6]. The primary data in this research were the results of observations and interviews with the Department of Culture and Tourism managers.

2. Secondary Data

Secondary data is a source of research data that does not directly provide data to data collectors [8]. The secondary data in this research was an overview of several literature studies, such as journals and other literacy sources.

2.3. Data Collection Technique

Data collection methods used in this research were:

1. Unstructured interviews: data are collected by asking questions directly to respondents, and researchers do not use interview guides.
2. Observation: data are collected by making direct observations of existing objects, not limited to human behavior [9].
3. Documentation: a document study complements to observations and interviews in qualitative research. It helps to improve the credibility of qualitative research results[10].

3. Result and Discussion

This research took place in Balekambang City Park, one of the tourism attractions in Surakarta City. Surakarta is a small city in Central Java Province. Now the city is increasingly attracting tourists with its cultural and historical heritage. In addition, Surakarta is unique compared to other cities. One of its uniqueness is Balekambang City Park, an urban forest located in the middle of the town. This park has an area of about five hectares, with many trees growing there. This tourism attraction was built in 1921 by KGPAAM Mangkunegara. At that time, this park's name was Partini Tuin, taken from the name of the king's favorite daughter, Partini. This park was once not well-maintained, but in 2007, the Surakarta City Government revitalized and turned it into a new tourist spot. As previously explained, the park was built as a gift for the king's two daughters, namely GRAY Partini Husein Djayaningrat and GRAY Partinah Sukanta. The two daughters' names were used to name parks in Balekambang, namely Partini Tuin Park and Partinah Bosch Park.

The last revitalization process took place in 2007, or more than 13 years ago. Since then, there has been no other revitalization process. The park has become poorly maintained, and many places have been abandoned or closed, such as the urban forest park. This urban forest park has considerable tourism potential and an essential role

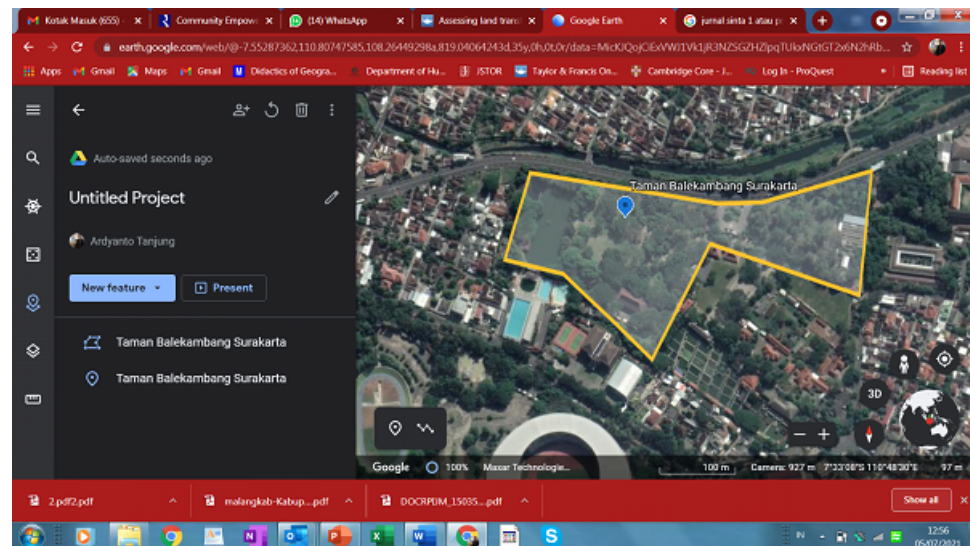


Figure 1: Google Earth Map of Balekambang City Park in Surakarta.

in environmental sustainability. Urban forests are important because they help clean the air, maintain groundwater availability, prevent the hot temperature (sun protection), protect the animals, and become recreational. Urban forests can reduce the impact of harsh weather, such as reducing wind speed, reducing flooding, providing shade, and reducing the global warming effect. Here are some benefits of urban forests:

1. Aesthetics

Concrete and skyscrapers can indeed form a beautiful urban landscape. However, this beauty will become meaningless if it is not interspersed with green trees. The combination of natural beauty and buildings can form a more aesthetic city. Often, big cities in the world look more beautiful because they have green and lush garden [11].

2. Hydrology

Urban forest soil and trees can regulate water management. During the rainy season, the forest soil and trees collect rainwater to not flow directly to lower places, thereby reducing the risk of flooding. Meanwhile, the forest soil and trees can provide groundwater for the townspeople in the dry season.

3. Climatology

Urban forests can affect the surrounding microclimate, such as lowering the ground surface temperature so the temperature is cooler. It will be beneficial, especially for cities with tropical climates like those in Indonesia.

4. Animal Habitat

Urban forests are places for plants and also various types of animals. The living space of animals in urban areas is increasingly decreasing, and urban forests can protect these animals.

5. Pollution Reduction

Big cities are usually full of pollution, both air and water pollution. Trees can reduce harmful pollution as leaves can filter out dust, dirt, and other toxic gases.

6. Carbon Storage

CO₂ is one of the greenhouse gases that cause global warming. Forests or trees, and biomass such as wood and leaves, are effective CO₂ absorbers from the air.

7. Education

Urban forests can be a place for environmental education, especially for children. Children may learn many things from a natural ecosystem, especially those related to life sciences. In addition, urban forests can raise public awareness of the importance of conservation.

8. Recreation

Urban forests are good to relieve stress from the hustle and bustle of city life. People can also use it as a place for sports activities, such as jogging or cycling.

9. Economics

If the management is good, the urban forest can become a tourism attraction. Many big cities in the world sell the beauty of their urban forests to travelers. The direct economic impact of tourism comes from collecting entrance tickets, and the indirect benefit comes from the hotel, restaurants, souvenir crafts, and other community businesses.

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According to the revitalization plan, Partini Tuin still functions as a water park and water catchment area. The development of Partini Tuin will focus more on the conservation value. One way to keep the water clean is by installing or placing a Joglo or a hall in the middle of the pool. The Joglo will also add a functional value because people can relax there and enjoy the beauty of the lake. It can also be used for Keroncong music performances or other performances regularly. Tertoyoso swimming pool is reused, and

the existing buildings are rebuilt to their original state. Tertoyoso swimming pool and the lake will become a water absorption area again. All facilities and infrastructure that are currently being arranged will be fully used to benefit the public and complement all activities held at Balekambang City Park. The facilities in Balekambang City Park include:

1. Water Park or Partini Tuin
2. Partinah Bosch City Park
3. Open Stage
4. Art Building
5. Bale Apung
6. Bale Tirtayasa
7. Art and Culture Documentation Center and Gallery
8. Swimming Pool
9. Frog Pond
10. Therapeutic Garden
11. Prayer Rooms
12. Toilet

During the observation, Balekambang City Park was quite good because it has been revitalized recently. Some spots have been beautified with different spatial arrangements. However, the forest area located in the front corner of Balekambang City Park was still closed to support revitalization optimally.

Based on data collected from the Department of Culture and Tourism of Surakarta City, softscape elements were found in approximately 84 types of plants in the urban forest in Balekambang City Park—almost all of which have met the standard for plant selection. The diversity of tree characteristics was found in the form of fountain crown trees (16.7%) such as palm trees, beautiful shrubs (16.7%) such as Pilo Dendrum, fruit trees (35.7%) such as mango trees, scented trees (2.4%) such as weeping paperbark, beautiful flowering trees (5.6%) such as flamboyant trees, beautiful-leaf trees (38.1%) such as sansevieria, shade trees (32.2%) such as weeping fig, beautiful flowering bushes (2.4%) such as bougainvillea, vines (2.4%) such as dragon fruit, and beautiful flowering shrubs (5.6%) such as orange jessamine.



Figure 2: Balekambang Urban Forest Park is closed.

Softscape refers to the live horticultural elements of a landscape. Softscaping can include flowers, plants, shrubs, trees, and flower beds. The purpose of the softscape element is to give the landscape garden characteristics, create a good impression, atmosphere, and sensitivity to the people around. Softscape on soft elements for plants is usually a combination of shrubs, vines, shade plants, flowering plants, and cover crops (such as purslane, blue eyes, onions, and grass). In addition to plants, water is also a soft element that can be added to the garden.

The urban forest in Balekambang City Park consists of various plant species. Each tree has been given its own identity in the form of tree names and their Latin names. Naming each tree can help to support the educational purpose for tourists. Table 2 presents data on trees in Balekambang City Park:

The softscape data tell the percentage of Softscape elements in Balekambang City Park combined with the classification of plant types and sizes. The percentage of softscape elements is presented in the following table:

TABLE 1: Plant Types/Sizes.

Plant Types/Sizes	Characteristics And Role In The Garden	Example
Small Tree, 3 - 6 meters	Canopy forms an intimate space Fits on small yards Becomes a visual attraction when combined with small plants	Star fruit, Frangipani, <i>Platyladus orientalis</i> L. (<i>Cemara kipas</i>)
Medium Tree, 9 - 12 meters	Not suitable for small yards	Jackfruit, fern tree, watery rose apple
Big Tree, > 12 meters	Visual attractor	American mahogany, amboyna pine, rain tree
Bushes/shrubs, 3 - 4.5 meters	Acts as a wall Used as a divider and shaper of a private space or as a neutral backdrop for statues or flowering plants	Red cabbage, <i>Pisonia alba</i> Spanoghe (<i>Kol banda</i>), <i>Mussaenda pubescens</i> (<i>Nusa indah</i>)



Figure 3: One of the spots of the urban forest in Balekambang City Park.

4. Conclusion

Balekambang City Park is one of the tourism attractions in Surakarta City. The park is unique because it is a tourism forest located in the middle of the city. It has an area of about five hectares as a home for various kinds of trees. This park was once not well-maintained until the 2007 revitalization by the Surakarta City Government that turned it into a new tourist attraction. Since then, there has been no other revitalization process. The park has become poorly maintained, and many places have been abandoned

TABLE 2: Softscape Data of Balekambang City Park.

No.	Name of Tree	Quantity	No.	Name of Tree	Quantity
1.	<i>Akasia</i> (Acacia)	7	45.	<i>Mahoni</i> (American mahogany)	70
2.	<i>Andong cmerah</i> (<i>Cordyline fruticosa</i>)	2	46.	<i>Malaba</i>	14
3.	<i>Apel blodru</i> (Velvet apple)	12	47.	<i>Mangga</i> (Mango)	39
4.	<i>Ara</i> (Common fig)	1	48.	<i>Melati air</i> (Water jasmine)	7
5.	<i>Asem</i> (Tamarind)	2	49.	<i>Mengkudu</i> (Great morinda)	2
6.	<i>Bambu</i> (Bamboo)	837	50.	<i>Mojo beruk</i>	2
7.	<i>Batavia</i>	3	51.	<i>Munggur</i> (Raintree)	13
8.	<i>Blimbing bintang</i> (Star fruit)	2	52.	<i>Palem</i> (Palm tree)	61
9.	<i>Blimbing wuluh</i> (Bilimbi)	2	53.	<i>Pepaya</i> (Papaya)	0
10.	<i>Beringin</i> (Weeping fig)	30	54.	<i>Petai cina</i> (River tamarind)	51
11.	<i>Beringtonia</i>	6	55.	<i>Pilo jari/pilo dendrum</i>	35
12.	<i>Bintaro</i> (Sea mango)	3	56.	<i>Pinus</i> (Pine)	2
13.	<i>Bogenvil</i> (Bougainvillea)	13	57.	<i>Pisang</i> (Banana)	94
14.	<i>Buah naga</i> (Dragon fruit)	3	58.	<i>Pohon gayem/solok</i> (Tahitian chestnut tree)	16
15.	<i>Bunga euphorbia</i> (Euphorbia flower)	9	59.	<i>Pohon kelengkeng</i> (Longan tree)	4
16.	<i>Cemara norfork</i>	5	60.	<i>Pohon nangka</i> (jackfruit tree)	5
17.	<i>Cemara gunung</i> (<i>Casuarina junghuhniana</i>)	18	61.	<i>Pohon perdamaian</i> (Fish poison tree)	7
18.	<i>Cemara lilin</i>	27	62.	<i>Pohon tanjung</i> (Spanish cherry)	40
19.	<i>Cemara udang</i> (<i>Casuarina equisetifolia</i>)	1	63.	<i>Puring</i> (Garden croton)	25
20.	<i>Cokelat</i> (Cacao)	1	64.	<i>Rambutan</i>	13
21.	<i>Delima</i> (Pomegranate)	1	65.	<i>Randu</i> (kapok tree)	7
22.	<i>Durian</i>	7	66.	<i>Red pineapple</i>	0
23.	<i>Duwet</i> (Java plum)	4	67.	<i>Sansevieria</i>	45
24.	<i>Flamboyant</i>	11	68.	<i>Sawo ijo</i> (Star apple)	4
25.	<i>Glodokan</i> (<i>Polyalthia Longifolia</i>)	5	69.	<i>Sawo kecil</i> (Caqui)	60
26.	<i>Heliconia</i>	30	70.	<i>Senu</i> (<i>Melochia umbellata</i>)	2
27.	<i>Jambu biji</i> (Common guava)	5	71.	<i>Serut jawa</i>	5
28.	<i>Jambu dersonol/jambu jama</i> (Malay apple)	3	72.	<i>Cemara papua</i> (<i>Cupressus papuanus</i>)	5
29.	<i>Jambu mete</i> (Cashew)	4	73.	<i>Singkong karet</i> (<i>Manihot glaziovii</i>)	1
30.	<i>Jarak puter</i>	2	74.	<i>Sono keeling</i> (Rosewood)	19
31.	<i>Jati</i> (Teak)	229	75.	<i>Srikaya</i> (Sugar apple)	2
32.	<i>Jemani</i> (Anthurium)	4	76.	<i>Sukun</i> (Breadfruit)	3
33.	<i>Kamboja</i> (Frangipani)	9	77.	<i>Tabe buaya</i>	4
34.	<i>Kantil</i> (White champaca)	2	78.	<i>Tales</i> (Taro)	120
35.	<i>Karet</i> (Natural rubber)	5	79.	<i>Talok</i> (<i>Muntingia</i>)	48
36.	<i>Kayu putih</i> (Weeping paperbark)	75	80.	<i>Tremballo</i>	1
37.	<i>Kelapa</i> (Coconut)	7	81.	<i>Trembesi</i> (Monkey pod tree)	46
38.	<i>Kelapa sawit</i> (Oil palm)	14	82.	<i>Waru</i> (Sea hibiscus)	29
39.	<i>Kemuning</i> (Orange jessamine)	1	83.	<i>Wuni</i> (Bignay)	1
40.	<i>Kanari</i>	3	84.	<i>Salam</i> (Indonesian bay leaf)	2
41.	<i>Kepel</i> (Burahol/Kepel fruit)	23	85.	<i>Angsana</i> (Amboyna wood)	22
42.	<i>Ketapang</i> (Country almond)	11	Total		2,409
43.	<i>Klerek</i> (<i>Sapindus rarak</i>)	2			
44.	<i>Kunta bima</i>	2			

or closed, such as the urban forest park. This urban forest park has considerable

TABLE 3: Percentage of softscape elements.

No	Tree Types	Percentage
1.	Fountain crown	16.7%
2.	Beautiful shrubs	16.7%
3.	Fruit trees	35.7%
4.	Scented trees	2.4%
5.	Beautiful flowering trees	5.6%
6.	Beautiful leaf trees	38.1%
7.	Shade trees	32.2%
8.	Beautiful flowering bushes	2.4%
9.	Vines	2.4%
10.	Beautiful flowering shrubs	5.6%

tourism potential and an essential role in environmental sustainability. According to the revitalization plan, Partini Tuin still functions as a water park and water catchment area. The development of Partini Tuin will focus more on the conservation value. All facilities and infrastructure that are currently being arranged will be fully used to benefit the public and complement all activities held at Balekambang City Park. During the observation, Balekambang City Park was quite good because it has been revitalized recently. However, the forest area located in the front corner of Balekambang City Park was still closed to support revitalization optimally. Through the Minister of Public Works and Public Housing (PUPR), some sources stated that the central government would start working on the revitalization of Balekambang City Park. By 2022, the park is expected to become the center of Javanese culture.

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