

## Design Guidelines for Recreation Area of Romklao Kallapruek Park in Khon Kaen University<sup>1</sup>

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### Abstract

This article aims to present the aesthetic factors, enhancing activities in recreation areas, together with physical factors of areas. Apart from these factors, there are other factors encouraging present activities, which lead to variety of activities, both active and passive recreation, based on ways of living. The areas offer open space and other space for various aesthetic activities, and the design of recreation area including trees providing shady areas and street furniture supports the different kinds of activities, the feature of the area, and its use. In addition, these factors are helpful in helping the areas capable of responding to users' need efficiently.

This research studied, collected, and analyzed the significant aspects, by qualitative data collection and qualitative data analysis, to contribute the guideline for the design of recreation areas. Accordingly, the result is useful for guiding the design and development of the recreation areas to satisfy users' behavior aesthetically. According to the result of the study, the factors supporting recreation activities include the safety of users, the activities attracting users to create the lively environment, and the operation and maintenance of the areas. Consequently, these factors are correlated, and supportive for creating aesthetics in recreation areas.

**Key Word (s):** Behavior / Activity / Recreation area

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## 1. Introduction

Khon Kaen University is the first higher-education institution in the northeast of Thailand with more than thirty thousand bachelor's students from twenty-two faculties. The university also comprises of Srinagarind hospital, public utilities for serving university personnel, students, and general people, and other organizations. Because of this, it is essential for the university to have areas to support every activity (Khon Kaen University, 2013). From the current culture and lifestyle, there are different types of activities, and these activities, including active recreation and passive recreation, vary across people's ways of living. Accordingly, the area needs to be able to provide open space and recreation area to respond to students' leisure activities, and design of the area has to be able to conform to the features of the area and its usage appropriately. Additionally, there are trees to create shelters and shady atmosphere and street furniture to facilitate the users; hence, these compositions of the area are helpful in satisfying and responding users' need. However, the composition of some recreation areas is not sufficiently suitable for their use. Consequently, inappropriately designed areas, which do not suit users' behavior, cause the limitation in using the areas, and there are not any users in some areas. This problem leads to the inefficiency in using the areas especially when artworks are aesthetically taking places in the composition of modern creative activities.

Consequently, the objectives of this study are 1) to find the feasible way to develop recreation area by considering features of the area and physical factors affecting the use of recreation areas 2) to investigate the behaviors and activities of recreation areas' users and 3) to examine Khon Kaen University students' needs to fulfill the recreation area usage aesthetically. In this study, the case study is Romklao Kallapruek Park, in Khon Kaen University, which is one of the major parks visited by many users. The result of this study is beneficial for recreation area design.

## 2. Objective

The objective of this study is to examine factors affecting landscape environment of the recreation area that influence area use of Khon Kaen University's students and staffs.

## 3. Scope of the Research

In present study, the relevant theories, principles, and policy guidelines are collected based on landscape environment of recreation area and users' behavior. The study focused on the case of Romklao Kallapruek Park, Khon Kaen University by investigating students and staffs'

behaviors including activities done in the area, the overall picture of activities, and the distribution of the activities in the area based on the guidelines for area development.



**Figure 1:** Plan of Romklao Kallapruet Park, Khon Kaen University.

#### 4. Literature Review

The previous studies conducted on this area presented some significant points focusing on parks and recreation activities of parks' users.

##### 4.1 Behaviors in Parks

4.1.1 In terms of environment of feeling, park users need the specific environment associated with their activities (Rutledge & Molnar, 1985: 102). For instance, the park needs to be open-air, suitable for sports, not too windy, and sunny, and has no smoke, bad smell, and other undesired atmospheres such as dirtiness and rubbish.

4.1.2 In terms of social environment, Rutledge (1981: 102) has divided users' behaviors into 2 categories: 1) to see and to be seen, and 2) show time may be anytime.

4.1.3 Apart from the needs to be surrounded by nature, Marcus and Francis (1990) suggested that the users also need socialization, which includes overt socializing which is the need to be involved with the activities in the park directly and covert socializing which is to be in the area without any involvement.

4.1.4 Additionally, the environment creating secured emotion of users comfort users (Nilubol Klongvessa, 2001). This type of environment includes: 1) physical safety, which is maintenance and functionally appropriate materials, used in parks and 2) safety from crime,

which requires the specific design having open space, no out-of-sight spot, appropriate and sufficient light, accessibility, and activities to attract people in case it is a deep and narrow area.

4.1.5 Another, aesthetic environment is one of the essential features because it can offer comfortable feeling and carefulness in using the place.

## 4.2 Recreation Activities

4.2.1 Recreation activities include the desired relaxation for users' leisure time. According to Hackett (1971), there are two types of recreation activities, which are passive recreation and active recreation. On the one hand, passive recreation requires calm activities and light or no exercise (i.e. sightseeing, music listening, animal feeding). On the other hand, active recreation includes activities that need hard exercise (i.e. jogging, cycling, playing sports).

4.2.2 According to Marcus (1990), in terms of factors influencing recreation activities selection, there are key factors about users' characteristics including age gender popularity and co-users, and this corresponded to Hester's (1975) and Nilubol Klongvessa's (2001) findings. To emphasize, age is an outstandingly noticeable agent for behavior observation as well as gender. It is found that there are more male users than female users, and female users tend to spend time on group talking more than playing sports, which found individually done in male. Moreover, it is generally crucial to concern about popularity for which park was designed. In terms of co-users, the park users typically classify themselves and other users based on psychological rules, and they need the specifically separated area (sometimes they might be either satisfied or dissatisfied with sharing their area).

4.2.3 Apart from previous factors, the actual behavior of park use is another aspect to concern in terms of recreation area planning and management, and it is derived from the analysis of park users. Moreover, it is significant to concern about park use, aesthetics, and budget, and, according to Rutledge (1986, p.15-33) the factors affecting park use need to be able to respond to these aspects:

- 1) It is crucial to concern about accessibility of public parks including the appropriate distance and convenient transportation.
- 2) Activities done in parks of which the objectives are to relax and get the fresh air, are one of the agent in park design.
- 3) The parks need to be maintained to avoid deteriorated condition of parks, which causes the decrease in park users, homeless people occupancy, unlawful use, and lack of safety.

4) Allowing users to visit parks freely can make users feel unsafe, so the design of parks need to be able to achieve the criteria including reducing out-of-sight spots, security checking, restrictedly available parks' entrance, and sufficient light.

5) Not only elements and patterns of park but also the interesting activities, public relation, and promotion attract park users and cultivate the positive attitude towards parks, and these attractions can be created by encouraging leisure sport activity and supporting adult and work people exercise i.e. aerobic dancing and general exercise. Additionally, when the parks are properly designed to be lively, refreshing, and bright, it leads to the increase in numbers of park users, positive emotion to the parks, and parks' loyalty.

## 5. Research Methodology

This study is the mixed-method research in which the questionnaire is adopted as a data collection and analyzed statistically. In addition, the qualitative data collection, including the interview and the observation, is used as the additional explanation for quantitative data. In this study, the objectives of research question and research hypothesis are to clearly guide the study in terms of the significance of the study, the examination of the probability, and variables.

The primary data collection are the survey and field data collection done by using the simulation model and by distributing the interview edited after pilot test to the selected samples, and the data was discussed and concluded after collected.

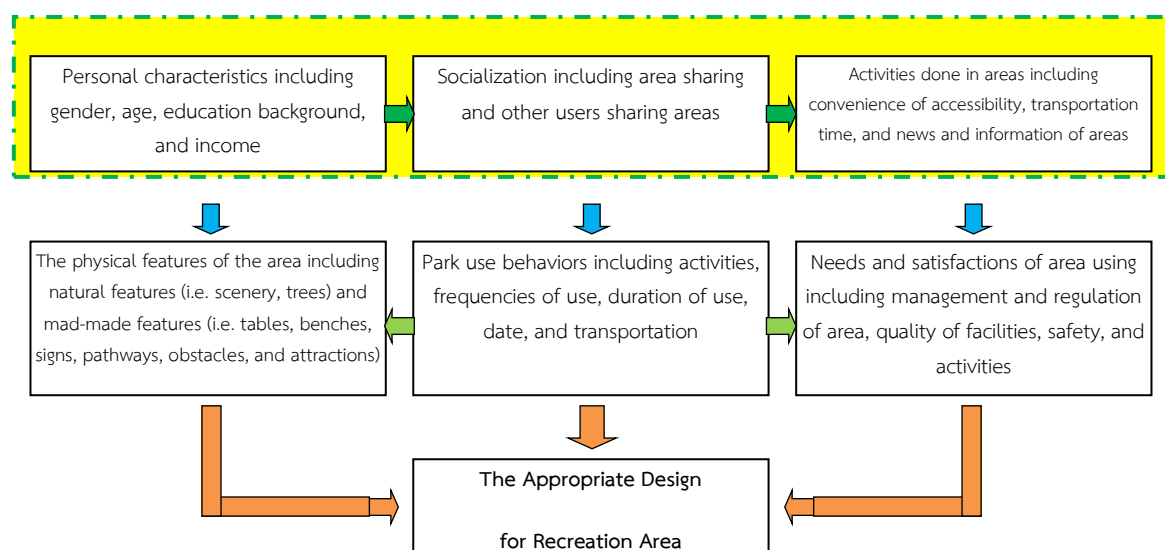


Figure 2: Conceptual Framework.

## 6. Result and Discussion

According to the observation and questionnaire provided to Romklao Kallapruek Park users, the collected data can be categorized in these following issues.

6.1 In terms of park use behavior pattern, it is proved that park users is one of the factors influencing users' decision on using the park or not (Hester, 1975); moreover, it is found that there is no certain group of users in both weekday and weekend. Accordingly, there is no significant difference between numbers of users in weekday and weekend. Besides, the number of users is found noticeably small although the park is located in the accessible and convenient-to-travel location. This is due to the negative reputation in terms of crime committed inside the park area, and it results in the hesitation of users to use the area as well. In addition, there are not any activities, excepted for walking past the park, found after 7 p.m., which is resulted from the insufficient light making users feel unsafe.

6.2 In terms of activities, it is obvious that most of the users aim to use the pathways, running track, and exercise machines, and the largest group of users, which is the routine users, use the area for their jogging, followed by long walking. As a result, it caused the inequitable distribution of users in some park areas. The park needs to provide functional area and instruments sufficiently; in other words, there need to be enough sport area, exercise machines, and other instruments in the area to associate with numbers of users and types of activities (Nilubol Klongvessa, 2000).

6.3 As mentioned, the distribution of users in park area is found inappropriate because the majority of users are mostly at the pathways for its panoramic feature suitable for daytime visitation. After 7 p.m., it is proved that there are users in only the area providing light, and there are not any users in the area without light because of the unsafe environment.

6.4 According to the tables showing numbers of users in each time and area, it is existed that only some park areas, including pathways, running tracks, and the areas beside pathways, are used, which causes inefficient park use compared to the size of the park. Furthermore, the least used park areas is considered lacking of sight and scenery views.

6.5 In accordance with questionnaire result collected from 102 park users, one of the key factors playing roles in park use is physical factors below.

6.5.1 Artistic and aesthetic factors, including space for activities, (i.e. music performance) swimming pool, and nature, are considered essential for park users' needs and activities. Moreover, sculptures and artworks also take the major roles aesthetically. Marcus and Francis (1990) stated that beautiful, neat, and clean parks offer park users the aesthetics (i.e. appropriate elegant landmark arrangement and space of music performance). According to

Hester (1975) and Nilubol Klongvessa (2001), the park attractions can be visual arts, music, and performing arts; in the same way, park decoration including flowers, bushes, lamps, and other decorations is also significant for creating comfortable environment, careful use, and aesthetics, which directly involves with exquisiteness.

6.5.2 In addition, it is important to concern about factors of park safety. Generally, park users need to see other users and to be seen by others; thus, the area is suggested to provide panoramic views. Due to the small numbers of park users, most of the users typically select the best area from themselves, and they do not seem to be satisfied with sharing their area with others. Consequently, it leads to the frustrated and threatened feeling when the area is overcrowded. For this issue, Vimolsiddhi Horayangkura (1998) mentioned that individual users need certain personal space for various activities; hence, the arrangement of seats, instruments, or machines is required to be proper in order to contribute privacy and safety.

6.5.3 Another, factors in terms of park usage is considered crucial, apart from previous factors. In terms of the most used area, it is obvious that park users are more likely to use only some specific areas including shady areas and areas with grass grown or green areas. Moreover, it is recommended that the park needs to provide the clear signage, trashcans, public restrooms, separated running tracks for various speeds of running, exercise machines, playground, park benches, shelter, and bicycle lanes.

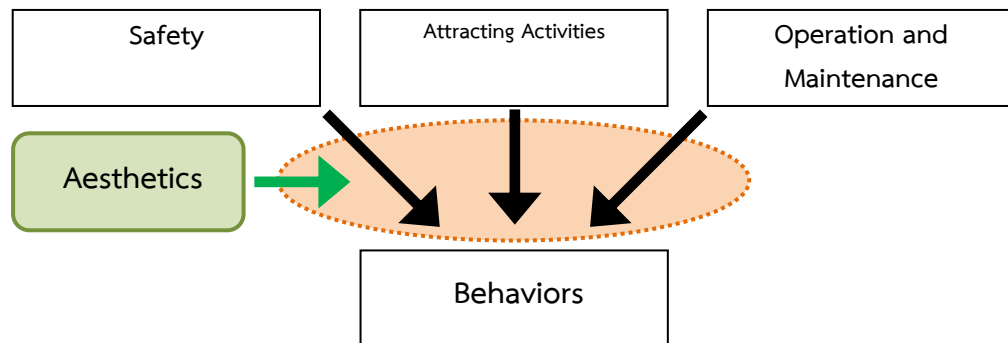
According to the results mentioned above, it is found that users is one of the major compositions of landscape environment, but their correlation is not direct and straight forward. In brief, there is a connection between landscape environment and behaviors of park use which are related to users. Rutledge (1983) has stated the principles of recreation area design that it is not only to concern about the environment and aesthetics but also to consider the relationship of areas and activities.

## 7. Conclusion

To encourage park use, there are various factors to concern. According to the study result, it is showed that safety, attracting activities, and operation and maintenance are the keys for making areas used by people. In terms of aesthetics, Rutledge (1986) stated that the patterns of park also influence numbers of park users, so the aesthetically beautiful parks are much more likely to attract users to come back to the parks. Besides, the lacking of facilities of parks (i.e. lavatory) and other problems including the lacking of safety, deteriorated condition, and unhygienic areas also affect users' attitude towards parks negatively. In consequence,

there are fewer users visiting parks for passive recreation while most of users are there for other specific purposes, especially for active recreation.

From the previous parts, figure 4 shows the factors affecting behaviors of park use..



**Figure 3:** The factors affecting behaviors of park use.



**Figure 4:** Art outdoor market provides variety of activities including selling products, exchanging points of views, and socializing through the artworks.





**Figure 5:** The music performance attract users to join the activities and create sound attractions.



**Figure 6:** The sculptures showcase attract users to create visual attractions.

**Remarks:** Some elements in the simulation scenario are taken from the internet which will be used for educational purposes only.

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