LEISURE & TOURISM | RESEARCH ARTICLE

Social distancing and beach open spaces: Recreational experiences of tourists at Bangsaen beach after the pandemic

Rungnapha Khamung¹ and Po Siu Hsu²*

Abstract: The pandemic mandates social distancing and demands mental rejuvenation. Social distancing caused the city to reorganize the beach open spaces and management strategies, which allow visitors a chance of rest and recuperation. The creation of sandy beach open spaces and realignment of umbrella seating zones effected the recreational experiences of tourists. The objective of this study was to find out what are tourists' recreational experiences at this beach, to seek out the spatial experiences of visitors, and to understand certain deficiencies in current tourism settings. The authors conducted the field survey using both open-ended questions and a closed-end questionnaire to investigate visitors' Recreation Experience Preferences (REP) with four major domains: personal use of beach open spaces, usage of beach open spaces, social activities, and long-term goals, along with 23 attributes. Secondary data of satellite historical images and tourism statistical data were used to further analyze the land use and activities to further understand visitors' spatial experiences. The study confirmed that creation of sandy beach open spaces and realignment of umbrella seating zones effected the recreational experiences of tourists positively. This study suggests further

ABOUT THE AUTHOR

Rungnapha Khamung, PhD, Rungnapha Khamung is an assistant professor at Burapha University International College since 2016. She is interested in pedagogical education, teaching methods, classroom management, active learning, sustainable ecotourism, organizational culture, tourism resources conservation, cultural heritage and cultural diversity, coastal and marine tourism, and tourism development.

Po Siu Hsu, ASLA, Emeritus Professor, Professor Po Siu Hsu retired from Oklahoma State University in 2012. Before that, he taught graphic and design studios in the landscape architecture program, Oklahoma State University, Stillwater, OK for over 20 years. He is interested in international study, study abroad, teaching methods, landscape architectural design, eco-lodge resort development, sustainability, constructed wetland design, sustainable tourism, graphic language, and aural architectural design. Their paper points to the social and spatial change the Covid-19 pandemic has caused, and offers a helpful methodology for other practitioners.

PUBLIC INTEREST STATEMENT

Nearly two years into the Coronavirus outbreak, the conversation has shifted to better tourist destination strategies to offer tourists a safe and relaxing atmosphere in this new normalcy. The pandemic mandates social distancing and demands mental rejuvenation. Social distancing caused the city to reorganize the beach open spaces and management strategies, which allow visitors a chance of rest and recuperation. The creation of sandy beach open spaces and realignment of umbrella seating zones effected the recreational experiences of tourists. This study conducted a field survey to investigate what motivates visitors, what are their spatial experiences, and what could be improved? The new beach open space zones offer a socially distancing environment for personal mental health enhancement, as long as they are properly managed according to the seating capacity. This paper attempts to make a contribution in addressing the crisis caused by the pandemic and ways to mitigate some of the disruption of livelihood.

¹Corresponding author: Po Siu Hsu, Horticulture and Landscape Architecture, Oklahoma State University Stillwater, United States E-mail: Paul.hsu@okstate.edu

Received: 01 July 2022
Accepted: 30 October 2022

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investigation on beach development plan with separated functional zones to improve spatial experiences.

**Subjects:** Tourism Geography; Tourism Management; Tourism Planning and Policy; Tourism Research Methods; Tourism and the Environment; Tourism Behaviour; Tourism Development/Impacts; Landscape Conservation, Maintenance and Management;Planning and Sustainability

**Keywords:** Social distancing; open space; recreational experiences; pandemic; beach land use

1. Introduction

Bangsaen Beach is a popular destination in Thailand for domestic tourism. This study attempted to explore the rearrangement of beach open spaces, umbrella seating zones, and tourist’s recreational experiences towards the coastal tourism landscape at Bangsaen Beach during this time of change. The Covid-19 pandemic altered the manner of tourists’ visit, it forced the enforcement of social distancing, and it demanded accessible open spaces. In 2020, the Saensuk municipality (the governing body of Bangsaen Beach) designated seven sandy beach open spaces with social distancing rules along with rearrangement of umbrella seating zones to safeguard the public health while maintaining the viability of tourists’ recreational needs and local business operations (Khamung & Hsu, 2021a). This study aims to investigate the effect of open space realignment and the preferences of visitors’ recreational experience in this new normalcy.

Bangsaen was a sleepy fishing port with a rustic coastline until the 1940s, when it was developed into summerhouses for vacationers (Iwase, 2011). Subsequently, local business people “developed tourism in Bangsaen for seeking profits, and have become the source of economic, political and social power” (Iwase, 2011, p. 9). Before the Covid-19 pandemic, the beach was crowded with traffic congestion. It has few recreational varieties and tightly packed sunbed zones (Khamung & Hsu, 2018). Bangsaen mass tourism attracts domestic beach goers with a long stretched coastline, traditional vending stalls and umbrella seating zones. This tourist destination evolved naturally without specific functional design; it is a monotonous beach with parallel rows of an umbrella seating zone, a coconut tree alley, a pedestrian walkway, vending stall lines, and a vehicular zone (Khamung, 2018).

As reported by Chuwiruch (2020), Thailand is shifting its tourism revitalization strategies away from mass tourism and gearing towards wealthy people looking for seclusion and social distancing in the post Covid-19 pandemic. Thailand’s government seizes this pandemic crisis as an opportunity to alleviate the overcrowding of beaches and environmental degradation by addressing these past problems caused by mass tourism. There is a need to comprehend visitors’ motivations as an important phase of tourism destination management (Corre et al., 2021; Megha & Wilhelm Stanis, 2013; Pietilä & Kangas, 2015). According to Weber and Anderson (2010, p. 46), the preferences of urban and regional park users provide insightful information for outcome-focused management. Their study discovered a core group of preferences, such as “enjoying nature, escaping personal/social pressures, escaping physical pressures, and enjoying the outdoor climate.” Park managers can use the findings of visitors’ satisfaction level to realize desired outcomes. Past research studying the relationship between tourism setting and recreational experience have mostly focused on the changes of the settings that would affect tourists’ recreational experience and management operations. Most of these research have overlooked the spatial features of experiences (Pietilä & Kangas, 2015). Architects have known to design spaces to accommodate people’s spatial experience. Spaces can make one feel content, calm, and secure, or, on the contrary, poorly planned spaces can make one feel uneasy, intimidated, and vulnerable (Rahimi et al., 2018).
1.1. A new normal at the beach
The Saensuk municipality reopened Bangsaen Beach on 3 June 2020, after months of lock down and quarantine. Besides the aforementioned implementation of beach open space zones, the city imposed social distancing rules, required face masks, prohibited the drinking of alcoholic beverages, and required Commercial Zone (vending stall) businesses to close on Tuesdays. This recalibrated opening was welcomed by small business vendors at the beach. The beach was swamped by the pent-up demand of an estimated 5,000 domestic Thai visitors (News, 2020). For two years of pandemic onslaught, Bangsaen Beach opened and closed several times due to the spread of new Covid-19 variants. The pent-up demand of domestic travelers transformed Bangsaen Beach both positively and negatively (Chan, 2020). The open space provided mental relief to cooped-up visitors, but the traffic congestion and the beach seating filled beyond capacity tarnished the beach’s restful setting. Economically stressed vendors were more concerned about survival than this overcrowded situation. Nevertheless, most vendors welcomed the zoning changes and managed to work with redesigned seating and stall arrangements (Authors 2021a).

Based on this study’s on-site observation, the new beach zoning does create a positive beach atmosphere and generates a new destination image of Bangsaen Beach. During the early morning before the influx of tourists comes in, the sandy beach open spaces offer nice sitting places, pleasant breezy air, and peaceful sandy beach views. Well-spaced coconut trees make available sitting areas for picnic goers with ample social distancing space bubbles. Visitors can stroll along the pedestrian walkway or the sandy beach with ease. Local residents often took advantage of the quiet morning to exercise by walking, jogging, or biking. The coronavirus crisis gave the city an opportunity to redesign Bangsaen Beach into a picturesque new normal (Figure 1).

1.2. Purpose of the study
After nearly two years of Covid-19 desolation and the newly implemented zoning rules and business restrictions, the objective of this study was to find out what are tourists’ recreational experiences at Bangsaen Beach under this new normalcy, to seek out the spatial experiences of visitors in these beach open spaces, and to understand certain deficiencies in current tourism settings. Scholars have developed an extensive list of domains and scales to examine Recreational Experience Preference (REP) of visitors’ motivations who are engaging in tourism activities (Corre et al., 2021; Kurar, 2021; Manfredo et al., 1996; Raadik et al., 2010). This study intends to investigate the effects of open space realignment and the preferences of visitors’ recreational experiences, thus four major domains of REP were designed into our survey questionnaire: personal use of beach open spaces, usage of beach open spaces, social activities, and long-term goals. Detail of these four domains and their attributes are explained in the Methodology section. This study intends to include multiple dimensions of experiences such as land use zoning, social distancing, beach open space and its spatial experiences as part of the research beyond...
a typical study of REP and sites. Based on visitors’ responses on personal use of beach open spaces and importance of outdoor activities at the beach, this study engaged conversations and made recommendations to better tourist destination strategies to offer tourists a safe and relaxing atmosphere.

2. Theoretical perspective

2.1. Recreational experience preference

Manfredo et al. (1996) developed extensive domains and scales for Recreational Experience Preference (REP) to measure the motivations of people engaged in leisure and understand the consequences of leisure activities. Acquiring the recreational experience information can assist the tourism planners and managers to develop strategies that minimize the conflicts among tourists and the destination engagements. The meta-analysis of their study validates important domains that include “Achievement, Autonomy, Risk taking, Similar people, New people, Learning, Enjoy nature, Introspection, Creativity, Nostalgia, Fitness, Social escape, Physical escape, Teaching, Risk reduction” (Manfredo et al., 1996, p. 206).

Corre et al. (2021, pp. 100,332) applied the REP scale to coastal and marine protected areas with four types of domains: “Enjoy nature”, “Escape personal social pressures”, “Achievement/stimulation” and “Physical fitness”. Their findings suggest the facilitation of the REP is important for its management of the coastal and marine protected areas and building public support towards its conservation goals. Kurar (2021) conducted a study to determine Recreational Experience Preferences (REP) of the local people. Kurar found that going on a picnic, and visiting friends are most popular, while having a good time, mind and body relaxation, and togetherness with people gave the local people essential motivation. Raadik et al. (2010) applied REP to examine motivations of visitors at Fulufjället National Park, Sweden for improving management approaches and delivering suitable recreation opportunities. Their study identified four primary REP domains: “self-discovery, experience of places, seeking solitude and challenging self” (231). With these four domains and data on visitor numbers, attachment places, and motivations, their study attempted to examine why visitors select specific settings and the benefits they pursue. Fix et al. (2013) analyzed the perceived crowding at sites with the Recreation Opportunity Spectrum (ROS). Their study found that ROS classes are highly associated with crowding and that the recreational experience is reliant on site-specific settings. Additionally, they suggested that future research should focus on multiple dimensions of experiences and fine-tuning the opportunity spectrum as a management tool.

2.2. Spatial experiences

People bond to a place with emotion aroused from a variety of experiences and site settings. Megha and Wilhelm Stanis (2013) investigated the relationships of these two concepts: place attachment and recreation experiences. Their study confirmed that attachment to a site-specific setting may boost motivations to visit that specific place. Their study further suggests that recreational experiences such as learning, solitude, nature, personal growth, and being with people alike nurtured meaningful social relationships on site. Pietilä and Kangas (2015, p. 26) applied a geographic information system (GIS) to explore visitors’ recreational satisfaction in Oulanka National Park. Their study concluded that visitors who enjoy positive experiences at the scenic areas are “spatially clustered and often concentrate in the same locations within the park”. Their study expanded the spatial distinction of recreational experiences and further proved the usefulness of geographic mapping techniques in management assistance.

Rahimi et al. (2018, p. 245) developed a study model for enhancing the quality of spatial experience with three stages: “encouraging, enabling, and enclosing”. Their model affirmed that those visitors are stimulated with strategies such as “persuasion, designing for meanings, and including concepts in design.” Vistad et al. (2013) investigated the contradiction between two types of land use functions, namely, public access and privacy control. Their study suggested
management strategies based on familiarity with local settings, on site spatial information, accessibility at the shoreline, and visitors’ attitudes. Other research pointed to the importance of proximity to home open spaces for physical activities and health and well-being, especially for older people. Pietilä et al. (2015) suggest easy accessibility to open spaces as an imperative goal in the planning and management of urban open spaces; the study further advocated infrastructure networks that stimulate public health coupled with pedestrian walking, bike commuting, and physical activity opportunities.

2.3. Open spaces
Bangsøen Beach attracts mainly domestic tourists from its surrounding vicinities. The main appeals are its open stretch of sandy beach, local specialty foods, souvenir stalls, and alleys of coconut trees. Tourists often visit this beach with a feeling of nostalgia that recalls the fun moments from past visits. Lusk (2021) observed that the effect of pandemic lock down and isolation was that metropolitan dwellers found sanctuaries in parks, plazas, and open spaces. People wanted more access to public spaces during the period of seclusion by the coronavirus. According to a survey conducted by the Urban System Lab (2022), people think parks and open spaces, especially places to sit, shade trees, water features, and places to socialize, are very important for personal mental health and physical well-being. The rules and regulations implemented by the municipalities tend to limit the accessibility of public spaces and hinder people’s mobility. Buckley et al. (2020) suggested that the economic value of parks increases proportionally when tourists’ mental health is considered. People would be hesitant to use the open space and its amenities if they are unable to socially distance themselves with others. This experience may affect the frequency of visits and the concerns of safety (Lab, 2022). Schuff (2020) pointed out the importance of a pedestrian walkway with ample two-meter space for social distancing from other people. Schuff further suggested that to eliminate societal inequalities and public health risks, the city needs to provide local areas for exercise, easier access to basic amenities, and safe spaces for walking.

The experience of recreational benefits of open spaces help park planners to develop management strategies. Nyaupane (2011) proposed four types of perceived benefits: personal, social, environmental, and economic that influence local residents’ decision on purchasing their residences. Nyaupane further suggested the importance of open space with outdoor recreation activities and accessibility to public lands for community interests. According to Chou et al. (2016), human society is an integral part of the urban ecological system, therefore, making positive connections between people and the natural environment is the key to the sustainable planning and management of open spaces. Chou et al. (2016) showed that people’s mind and body interact positively with open water or rolling grassland. Their study emphasized the health benefits between urban open spaces and human activities within. The Covid-19 lockdown puts many older people at higher risk of infection. Rolandi et al. (2020) found that older adults are less familiar with utilizing internet technology in place of personal social interactions. This resulted in loneliness and social isolation of older people. Rolandi et al. (2020) admit the use of social networking sites only alleviate partial desire of social inclusion. Thus, it is important to maintain personal social contacts under extreme situations of social isolation due to the pandemic. To take advantage of the leisure and tranquility of ocean landscape and beach space at Bangsøen Beach, it is beneficial to encourage small groups of social networking on site to promote a healthier environment.

2.4. Social spaces
The beach is a public open space that allows people to congregate in social spaces or personal spaces. Personal spaces are defined as zones of two to four feet radius where close friends, family members, or significant partners comfortably interact (Pacific.edu n.d.). On the other hand, social space are defined as four to twelve feet comfort zones for formal gatherings or social engagements (Pacific.edu n.d.). The pandemic has redefined the safety and comfort of social and personal spaces to six feet of bubble zones. Benzell et al. (2021) advocate two
elements of efficient social distancing; one is to implement strict restriction during the pandemic and two is to limit social contact at gatherings to reduce the transmission ratio. The Saensuk Municipality set regulations and measures for social distancing, activity zones, large group engagements, vending operations, and beach opening hours. These rules help to ensure the social interaction distances on recreational activities, either active or passive, provide safeguards to visitors' safety and health in public open spaces at the beach (Saensuk & Interview by the Author, 2020). Even though public spaces are critical for mental rejuvenation, some scholars advocate the importance of third spaces. Low (2020) considered the third space in local communities as viable locations for social interconnection and networking. These third spaces such as Koi's grilled seafood stand or Tide's coffee shop provide visitors with an association of belongings and feelings of social ties. Because of the infectious virus, Low (2020) cautioned against over-emphasizing dangerous public spaces while ignoring the significant connectivity of third spaces.

2.5. Safe outdoor activities
According to Authors (2018), Bangsaen Beach enjoys nature's gift with wonderful weather, a long stretch of coastline, low tidal waves, and a grove of coconut trees. Thus, the beach offers tourists various ways to enjoy active and passive activities. Before the pandemic, beach activities include “photography, banana boats, food and beverages, swimming, sun bathing, sand sculptures, and bicycling” (27). Most of these activities are low-risk outdoor activities during the pandemic. Mayo Clinic (2021) suggests people to conduct activities close to home or nearby parks or open spaces. The Clinic further recommends the following low-risk outdoor activities during the COVID-19 pandemic:

- Walking, running and hiking, rollerblading and biking,
- Fishing and hunting, golfing, rock or ice climbing
- Kayaking, canoeing, diving, boating or sailing
- Skiing, including cross-country and downhill skiing,
- Ice skating, snowboarding, sledding, and snowshoeing (Clinic, 2021)

2.6. Social distancing
Social distancing itself is a contradictory term; in order to be social, one must be interconnected with someone, performing certain activities within a close enough proximity. The widespread social distancing and strict isolation are means to mitigate the epidemic ravage. However, while these efforts may stop or slow down the spread of a highly contagious virus, these efforts also inhibit the free course of social activities (Musinguzi & Oppong Asamoah, 2020). Like many other countries, Thailand's economy suffered tremendously due to the lockdown of the borders, the shutting down of transportation, and the closing of local businesses. Bangsaen Beach took a big hit in its tourist visits during the pandemic. The annual number of visitors of Bangsaen decreased 63% in 2020 and decreased an additional 60% in 2021 (Sports 2021). Musinguzi and Oppong Asamoah (2020) commented that social distancing buys time for health care systems to respond to the epidemic and for government planners to mobilize resources and stabilize the economy. Thus, all stakeholders, including the national, provincial, and local levels, must work cohesively to circumvent the difficulty and inconvenience that the social distancing and lock down created.

Thailand is heavily dependent on tourism for its economy. The lack of international tourists and even domestic excursionists have major impacts on small local businesses. Fuchs (2021) found that many small businesses in Phuket, Thailand are resilient and willing to adapt in the absence of
foreign tourists. Fuch’s study concluded that most sampled businesses facing life changing obstacles found ways to adjust their business models through innovative technologies, adjustments to business models, and sculpting out new domestic markets. They have adapted to the new normal and are ready for global tourism to return. Gössling et al. (2021) studied the impacts of COVID-19 and previous epidemic/pandemics. They suggested that COVID-19 is like the climate change predicament we are facing. Their study questioned the appropriateness of the prerequisite for volume growth models crusaded by many tourism organizations. Their study further emphasized the vulnerability of low-income jobs and countries would being greatly impacted. The pandemic offers us a time to pause and rethink the direction of tourism amid this new normal and make transitions and transformations for sustainable tourism (Gössling et al., 2021).

3. Methodology
This research conducted a cross-sectional survey of the visitors at Bangsaen Beach during the month of November 2021 under the newly structured beach open space plan. The semi-structured questionnaire used to survey public opinion on the beach open space looked into visitors’ experiences based on their personal use of beach open spaces, the importance of beach activities, and the optimum goals of planning the beach open space. Four major domains with attributes of REP were designed into our survey questionnaire: personal use of beach open spaces (beach open space plan, umbrella seating arrangements, food vending stall, beach new image, and business rule); usage of beach open spaces (enjoying views, beach activities, gentle exercises, eating, picnicking, reading, relaxation, conversing, swimming, jogging, biking, and boating); social activities (social interaction, beach sports, beach fun, leisure and recreation); and long-term goals (protect the marine life, access to the shoreline, preserve scenic area, create enjoyable beach open spaces, limit overcrowding, personal mental health, and social distancing).

3.1. Study area
Bangsaen Beach is a flat sandy beach stretching 2.5 km from its eastern entry point at the Roundabout, through the middle point of Heritage Hotel, and ending at the west end of Laem Thaen beach area. This beach is lined with coconut and palm trees for its greenery while providing a shaded environment for local vending stalls and beach goers. Before the pandemic, this beach was bustling with vending stalls serving traditional Thai style food while visitors strolled on its pedestrian walkway. The beach is lined with umbrella seating zones where tourists enjoy dining, drinking, socializing, and swimming. Before the pandemic, there was only one major area of sandy beach open space near the Heritage Hotel that was accessible to beach goers, the rest of the shoreline was occupied by umbrella seating sunbeds for paying customers. During the pandemic, the Saensuk municipality rezone the beach with seven sandy beach open spaces and six umbrella seating zones, with social distancing rules imposed to meet the needs of public health and leisure necessity. The following satellite images provided a glimpse of beach land use at one exemplary location: Bangsaen Roundabout before (11–25-2019) and after (8-9-2021) the pandemic. In contrast, the image of 2019 where the beach was lined with umbrella seating and cars, the image of 2021 exhibited a bleakly empty beach with almost no beach activities during the lockdown period (Figure 2).

Figure 2. Bangsaen beach satellite images before (11–25-2019) and after (8-9-2021) the pandemic.

Source(s): (MaxarTechnologies, 2019, 2021)
3.2. The zoning rules and business operations

With the aid of on-site surveys by student assistants and the application of satellite images, this study delineated a series of open space plans, which are based on the Bangsaen sandy beach open space plan implemented in June 2020 by the Saensuk Municipality (Khamung & Hsu, 2021a). Bangsaen Beach is now divided into five zones, namely, commercial, recreational, vehicular, beach and sandy beach zones. The commercial zones consist of hotels, restaurants, convenience stores, and vending stall areas (food vending and umbrella seating). Food vending stalls and umbrella seating/vending areas are located to the immediacy of the beach zone. The seven sandy beach zones nested between umbrella seating zones function as the public open spaces (Figure 3).

The commercial zones for the vending stalls operate according to lot assignments. A lot delineated 29 meters of frontal space for food vending or umbrella seating. Vendors purchase the lot assignment from the city to conduct their businesses. A linear pedestrian walkway passes the alley of vending stalls and umbrella seating sunbeds allowing tourists to stroll, shop, dine, and socialize. With the newly designated sandy beach open space zones, beach goers have the choice of either renting sunbeds in the umbrella seating zones or throwing a beach towel under a coconut tree at the beach open space. At the beach open spaces, tourists can enjoy open views, sea breezes, picnics, or relaxation in a social distancing bubble. At umbrella seating zones with sunbeds, visitors can entertain themselves with sit down dining and social engagement in a confined setting. Two zoom-in maps of land use zoning near Bangsaen Roundabout and Heritage Hotel illustrate the details of various land use zones and how they interact with each other (Figure 4 and Figure 5).

Figure 3. Bangsaen beach open space plan.
Source(s): Authors

Figure 4. Bangsaen beach land use zoning near roundabout.
Source(s): Authors
3.3. Methods

The authors conducted the field survey during the months of November and December 2021 with the assistance of several students. Along with the survey form, the field staff gave prospective participants an informed consent statement, which stated that participation in this survey was voluntary that there would be no recording of personal information and that all responses would remain anonymous. Participants were free to drop any question they were unwilling to answer for any reason. Four major domains of REP, (namely, personal use of beach open spaces, usage of beach open spaces, social activities, and long-term goals), along with 23 attributes were incorporated into the closed-end questionnaire. The authors structured the questionnaires on a five-point Likert scale for the respondents to evaluate, where five signified “strongly agree” and one signified “strongly disagree” while three served as the neutral point. Each increased or decreased equal-interval, numerical point reflects the intensity of the respondents’ feelings for a given question (Likert, 1932). In addition, the authors conducted open-ended questions with conveniently sampled vendors to find out what are their grievances and/or wishes. The entire beach has 7 open spaces, 82 lots of vending stalls and 6 umbrella seating zones. Our field staff randomly sampled people from these spaces, lots or zones with Covid social distancing and safety precautions. Based on the average number of 5,000 daily visitors at the beach (Authors 2018), this study sampled 102 volunteering visitors randomly. With this consideration, the field survey derived a confidence level of 90 percent with errors ranging between ±10%.

The authors downloaded the statistical data of domestic tourism of eastern region of Thailand from the Ministry of Tourism and Sports official website (Sports 2021). In addition, this study used secondary data that has already been collected through satellite remote sensing technologies and made readily available through software such as Google Earth Pro for researchers to use. The authors took advantage of historical images collected in the past to analyze the land use and activities at the beach before and after the pandemic, and further utilized the satellite images to delineate the area occupied by umbrella seating zones and sandy beach open spaces.

The authors analyzed the collected quantitative data via an Excel spreadsheet for statistical data analysis. To simplify the data presentation, the results are presented in tables while categorical results are presented as percentages. Qualitative data, historical images, and oral interviews were documented, analyzed, and synthesized with notes for discussion.

3.4. A procedure of the research

The Covid-19 pandemic brought changes to Bangsaen Beach, affecting tourists’ visitation, vendors’ operation, and public space congregation. However, it also provides an opportunity for policymakers to realign the beach open spaces and activity zones for safe outdoor activities and for visitors a chance for enjoyment and recuperation. This study follows a simple framework (Figure 6)
to investigate the theoretical perspectives of public space versus personal space, effect of social distancing, and safe outdoor activities. In addition, this study used field surveys, satellite images, and tourism statistical data to analyze tourists’ recreational experiences and the beach activities within the umbrella seating zone versus the sandy beach open space. With proper management of beach activities and land use, Bangsaen Beach may offer a socially distancing environment for tourists to enjoy in a new normal after the pandemic.

4. Results

Bangsaen Beach is situated in Chonburi Province in the eastern region of Thailand. According to the Ministry of Tourism and Sports, there are two major beach destinations in this province, namely, Pattaya and Bangsaen. These two destinations attracted 18,602,920 visitors in 2019. Between them, 85% (15,732,866) went to Pattaya while 15% (2,870,054) visited Bangsaen. Interestingly, 63% of Pattaya visitors were foreigners, while only 5% of Bangsaen visitors were foreigners (Sports 2021). This notion sets Bangsaen apart as a popular beach destination for domestic Thai people. Therefore, any beach open space plan design should take these factors into consideration. Prior to the Covid-19 pandemic, the tourism at Bangsaen Beach was prosperous and enjoyed positive growth. The number of annual visitors during the period of 2015 to 2019 were around two to three million people. The foreign versus Thai visitors at Bangsaen were around 5% versus 95%. A drastic change occurred during the pandemic period. The annual number of visitors to Bangsaen dropped to one million in 2020 and further decreased to four hundred thousand in 2021, reflecting −63% and −60% changes versus prior years respectively (Table 1).

4.1. Demographic information

During November 2021, student assistants randomly targeted willing visitors for this open space and recreational experiences survey. The age of sampled visitors appears to be relatively normal, with an average age in the mid to late 30s. The gender representation is nearly equal, with 52% male and 47% female (with 1% preferring not to answer). Approximately 46% of visitors traveled from the Bangkok area, while 38% of visitors came from near Bangsaen. Very few foreigners

| Year | 2021* | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|------|-------|------|------|------|------|------|------|
| Total | 434,104 | 1,074,519 | 2,870,054 | 2,846,339 | 2,722,492 | 2,555,712 | 1,892,284 |
| Thai | 429,614 | 989,022 | 2,725,051 | 2,707,726 | 2,587,511 | 2,431,103 | 1,786,237 |
| Foreigner | 4,490 | 5,497 | 14,003 | 13,613 | 13,481 | 124,609 | 106,047 |

*Preliminary data reflect Jan-Dec for 2021

Source: Ministry of Tourism and Sports 2021
presented at this beach during the pandemic lockdown, therefore 99% of visitors sampled were Thai citizens. Most visitors came with family and friends at a party of 2 to 4 people, and their main purpose for visiting was relaxation, holiday pleasure, and socialization. 84% of people visited Bangsaen monthly or yearly, with 31% of people having visited Bangsaen 1–2 times and 49% of people having visited 3–6 times (Table 2).

### 4.2. Open spaces survey responses

The domain, personal use of beach open spaces, and its REP showed an overwhelming positive response from visitors towards the newly organized sandy beach open spaces. More than 90% of visitors indicated “Agree” and “Strongly agree” with the newly organized sandy beach open spaces, notwithstanding various zoning rules and business restrictions imposed during the pandemic. Most visitors felt the city’s beach open space plan meets their needs, liked the new umbrella seating arrangements at the beach, liked the new food vending stall arrangements, and appreciated the new image of Bangsaen Beach as a tourism destination. There were approximately 10% of visitors who considered the business Tuesday off and food vending stall arrangements as unsatisfactory.

For the domain, usage of beach open spaces, visitors ranked the passive activities slightly more important than the active activities based on their own use of beach open spaces. People preferred enjoying views of ocean waves, nature, and photography. They congregated at the beach for dining, picnicking, shopping, reading, relaxation, and conversing. Approximately 9% to 20% of the visitors felt that active beach activities, such as sandcastles, beach balls, or festivities, gentle
exercises, such as walking, strolling, swimming, skateboarding, jogging, or biking, and water fun sports such as banana boating or tube floating were either neutral or less important.

With regard to the REP of social activities, 95% of visitors considered social interaction (such as picnicking or group seating) and leisure and recreation (such as views, photography, vending food, walking, skateboarding, or biking), were more important compare with 88% of visitors who think beach sports (sandcastles, beach balls, or festivities) and beach fun (swimming, banana boating or tube floating) were more important.

As to REP of long-term goals, most visitors were sensitive to the goals of improving personal health and environmental quality. Nearly 95% of visitors considered it to be important to protect the marine life and keep the ocean clean, to increase access to the ocean shoreline, to preserve scenic area and photographic spots, to create enjoyable beach open spaces, to limit overcrowding and traffic congestion, to improve personal mental health and physical health, and to be able to socially distance during a visit (Table 3).

4.3. Beach open spaces versus umbrella seating zones
This study utilized satellite images to determine the perimeter and area occupied by umbrella seating zones and sandy beach open spaces. It should be noted that beach open space in general has a combination of palm tree shaded area and sunny sandy beach area for the enjoyment of nature, while the umbrella seating zones provide full shade within its confined spaces for social and dining engagements. Umbrella seating zone capacity takes consideration of passageways 10% and table-spaces 10% (TIDS, 2021). In 2021, six umbrella seating zones encompassed a total area of 261,841 square feet, which could entertain 18,415 people with full daily capacity. This space analysis method was verified by actual on site counting of available seating capacities during the weekday and weekend and assimilating its average in December 2021. The current umbrella seating zones layout consists of tightly packed seats in a confined space for maximum occupancy. Seven sandy beach open space zones encompass a total area of 235,099 square feet, which could entertain 14,974 people with full daily capacity. Beach open space seating capacity takes consideration of 6 feet social distancing bubble space with 10% passageway. Each bubble accommodates up to 2 people (Table 4).

4.4. Convenient tourist inputs and interviews with vendors
At the end of the survey, the author and student assistants often seized the opportunity to chat with some tourists for any opinions they would like to express. About 10 visitors generously discussed their thoughts with us. Some people who had visited the beach before said that they missed the bustling atmosphere before the Covid-19 pandemic and that previously there were more varieties of food to eat and festivals to enjoy. Crowds and traffic were not a concern. Meanwhile, some tourists came to Bangsaen Beach to relax by the ocean; their main motivation was to socialize with friends or loved ones, whether they are family, friends, or significant others. The new beach open space zones provide unrestricted space for sitting, resting, relaxing, or strolling, however, they felt that it got too crowded during the peak hours in the afternoon. Also, some visitors suggested improving food service with more varieties of local food, and adding beach staff to take care of the beach cleanliness and safety.

Additionally, two umbrella seating vendors discussed tourists’ behavior. Tourists generally come through the roundabout, so seating will be full first at the east end, subsequently spread to the Heritage Hotel zone at the middle, and then reach the Laem Thoen area at the west end of the beach. During the weekend of our study period, approximately 30% to 50% of the visitors would rent the seats. Both vendors recognized the reasons to rezone open spaces and beach seating zones: to reduce congestion during the pandemic, to adjust the beach scenery and environment, and to increase access to beach areas. However, both vendors considered the Tuesday business off rule as unnecessary and burdensome to their business operations.
Table 3. Bangsaen beach open spaces survey responses

| Please indicate the strength of your experiences based on your personal use of beach open spaces. (personal use of beach open spaces) | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|
| Do you feel the city’s beach open space plan meets your needs? (beach open space plan) | 2% | 1% | 0% | 17% | 80% |
| Do you like the new sunbed arrangements at the beach? (umbrella seating arrangement) | 0% | 1% | 5% | 23% | 72% |
| Do you like the new food vending stall arrangements? (food vending stall) | 0% | 0% | 7% | 34% | 59% |
| Do you like the new image of Bangsaen Beach tourism destination? (beach new image) | 0% | 1% | 5% | 20% | 75% |
| Do you like the business Tuesday off rule? (business rule) | 0% | 0% | 10% | 31% | 59% |
| Please rank the importance of the following activities based on your own use of beach open spaces. (usage of beach open spaces) | Least important | Not important | Neutral | Important | Very important |
| Enjoying views and photography (nature and ocean waves) | 0% | 0% | 4% | 20% | 76% |
| Beach activities (sandcastles, beach balls, or festivities) | 0% | 3% | 14% | 23% | 61% |
| Gentle exercises (walking, strolling, playing with water, etc.) | 0% | 0% | 9% | 31% | 60% |
| Eating, picnicking, and shopping | 1% | 0% | 3% | 13% | 83% |
| Reading, relaxation, and conversing | 0% | 0% | 2% | 25% | 73% |
| Swimming, skateboarding, jogging, or biking | 0% | 3% | 17% | 26% | 54% |
| Banana boating or tube floating | 1% | 1% | 9% | 23% | 67% |
| Please indicate how important the following activities are (social activities) | Least important | Not important | Neutral | Important | Very important |
| Social interaction (picnicking, group seating, etc.) | 0% | 0% | 4% | 15% | 81% |
| Beach sports (sandcastles, beach balls, or festivities) | 1% | 3% | 8% | 30% | 58% |
| Beach fun (Swimming, banana boating or tube floating) | 0% | 1% | 11% | 22% | 67% |
| Leisure and recreation (views, photography, vending food, walking, skateboarding, or biking) | 0% | 0% | 7% | 19% | 75% |
| How important are the following goals to you? (long-term goals) | Least important | Not important | Neutral | Important | Very important |
| Protect the marine life and keep the ocean clean (protect the marine life) | 0% | 0% | 2% | 9% | 89% |
| Increase access to the ocean shoreline (access to the shoreline) | 0% | 0% | 7% | 18% | 75% |
| Preserve scenic area and photographic spots (preserve scenic area) | 0% | 0% | 1% | 12% | 87% |
| Create enjoyable beach open spaces (create enjoyable beach open spaces) | 0% | 0% | 2% | 15% | 83% |
| Limit overcrowding and traffic congestion (limit overcrowding) | 1% | 1% | 3% | 18% | 77% |
| Improve personal mental health and physical health (personal mental health) | 0% | 0% | 0% | 23% | 77% |
| Able to socially distance during visit (social distancing) | 0% | 0% | 5% | 23% | 73% |

Source: Authors
5. Discussion and findings
Our study indicated that all four domains (i.e. personal use of beach open spaces, beach open spaces usage, social activities, and long-term goals) and their associated attributes received visitors’ positive preferences. This study investigated the rearrangement of beach open spaces, the recreational experience preferences, the spatial experiences of visitors, and the deficiencies of the site settings. The study confirmed that creation of sandy beach open spaces and realignment of umbrella seating zones effected the recreational experiences of tourists positively. The convenient interview with visitors and vendors suggested mixed feelings. Several visitors consider implementation of new beach open spaces is good for sit and rest. Many visitors concurred that their main motivation is rest and relax with friends and enjoy the sea breeze with their loved ones, whether they are family, girlfriends or friends. However, some visitors prefer the bustling atmosphere before the Covid pandemic, they missed the crowds, the beach festival, and the carefree wondering and eating. The pandemic mandates social distancing and demands mental rejuvenation, and the reorganization of beach open spaces allows visitors a chance of rest and recuperation. The rezoned sandy beach open space after the pandemic offered visitors places to enjoy ocean views, nature, and social gathering. The pandemic outbreak offered a reset of tourist destination strategies to offer tourists a safe and relaxing atmosphere in this new normalcy.

Bangsaen beach is a popular beach destination for domestic Thai people. They enjoy the bustling beach atmosphere, the Thai style seafood, and the cultural festivities. It appears that most Thai people are less concerned about overcrowding and traffic jams. The current umbrella seating zones layout consists of tightly packed seats in a confined space for maximum occupancy; however, our on-site survey indicated that only 50% of seats were occupied during the weekend. A complete redesign of the umbrella seating zones with various functions is suggested. Since most visitors came with family and friends with a party of 2 to 4 people for relaxation, holiday pleasure, and socialization, a cabana or gazebo style layout (a cabana or gazebo is a semi-enclosed shelter commonly located near beaches with one open side facing the water) with ample personal space would serve that purpose. This type of setting is in accordance with the Thailand government’s
revitalization strategy encouraging tourism to attract people looking for seclusion and social distancing in the post Covid-19 pandemic (Chuwiruch, 2020).

Based on the interview, we found that visitors tend to concentrate (spatially clustered) first at the east end of the beach, this is due in part to the monotonous functions and activities of Bangsaen Beach. Examining the vehicular infrastructure, we found that there are enough access points to the beach which can divert the tourists’ flow and concentration. Architects and landscape architects are specialized in applying functional spaces in the design schematics for green open spaces that facilitate learning, healing, and stress relief. Lau et al. (2014) approach a campus open space design with three main operatives: restorative spaces for healing and rejuvenation, activity spaces for flexible functional needs, and natural open space for integrated building and ecosystem. In order to improve the spatial experiences at the beach, accessibility, spatial functions, open air ventilation, and quality must be accounted for (Pietilä et al., 2015; Rahimi et al., 2018; Vistad et al., 2013).

Our study result indicated that Bangsaen Beach and Pattaya Beach attracted 18,602,920 visitors in 2019. Between them, 85% went to Pattaya while 15% visited Bangsaen. Based on the GIS mapping study (Songmanee et al., 2017), the land use classification analysis of Pattaya presented drastic differences in its functions and patterns. Most hotels (commercial land use) situated directly adjacent to the beach, which provides distinct functions of leisure activities, circulation, amenities, and food services in each cluster of hotel domain. The vehicular infrastructure provides easy access to hotels and other points of interests. Contrary to the Pattaya land use zoning, Bangsaen beach has a long stretch of monotonous functions in parallel spanning from the east end to west end of the beach, namely, beachfront, umbrella seating, food stalls, and vehicular access. He and Feng (2013, 1999) advocate that the “function, effect, solution, behavior, structure, and state” all have significant influences in the design processes. Further understanding of how food services, umbrella seating, dining opportunities, access to beach open spaces, access to the parking and vehicular infrastructures can address the overcrowding and monotonous beach functions, thus to deliver innovative design solutions. Rivera, et al. (2022) stated that outdoor open spaces are critical settings for leisure activities, social connection and social interaction with friends and family members. Their study suggested that future research should contemplate on a combination of public spaces with encouragement to social connectedness. Ginting and Septilia (2019) recommend well-designed public open spaces for social interaction to attract tourists and improve their perception and devotions. Chang and Zhang (2018) advocate creative outdoor spaces with design elements such as signage, landmarks, communication spaces, passage and circulation, night illumination, and other quality environment would encourage visitors to engage in leisure activities and offer a sustainable destination development. This study suggests the city to enlist help from professional Landscape Architecture firms to develop a comprehensive rezoning plan of umbrella seating zones into a cluster of three distinct functional subareas, namely area of food stalls, dense umbrella seating for social and dining that surround the food stalls, and less dense cabana seating for ocean views, nature and social gathering. This type of beach open space plan design with separated functional zones for food, social and open air could be implemented to keep tourists safe and provide a higher quality of relaxed atmosphere; it would be a breakaway design from the monotonous linear layout of food vending stalls and umbrella seating setup currently presented.

Satellite images provide historical perspectives and useful resources for before and after comparison. Satellite images enabled this study to delineate existing and historical sandy beach open spaces, umbrella seating zones, and verify allocations of zones by the city. There is a dramatic 209% increase of umbrellas seating capacity from 2019 to 2021. Since the statistics of hotel visitors to Bangsaen reported by the Ministry of Tourism and Sports showed a drastic decline during this time period (Table 1), this phenomenon could only be explained by the pent-up demand of domestic excursion tourists. Thai people are fatigued by the pandemic, and are looking forward to seeking reliefs outdoor. People from the vicinity of Bangsaen travel to this beach to discharge
their pent-up sentiment and psychological anxiety (Khamung & Hsu, 2021b). This influx of seating capacity could exert negative pressure on its already congested traffic and overcrowding atmosphere.

One researcher pointed out that the pandemic lockdowns changed home buyers’ preference towards locating further away from open spaces or proximity to beaches. Cheung and Andres Fernandez (2021) comment that home location choices tended to move away from possible contagion hot spots. Thus, it is important to develop proper management strategies to ensure the positive amenities of the beach open spaces. This study found that a great number of visitors do consider the importance of protecting marine life, keeping the ocean shoreline clean and accessible, and preserving scenic areas with enjoyable beach open spaces. In the meantime, most tourists came to Bangsaen beach to relax by the ocean and to socialize with friends or family. The new beach open space zones provide shaded space under the palm trees for sitting, resting, and relaxing. More importantly, the free flow of open air at realigned spaces offer a socially distancing environment for personal mental health enhancement; however, without the proper management of the sitting capacity, the crowds during the peak hours in the afternoon may render the social distancing ineffective.

Visitors’ recreational preferences offer planners valuable contributions not only to destination management, but also to other aspects of outdoor recreation such as business operation, environmental protection, and social interaction (Raadik et al., 2010). Covid-19 had a tremendous impact on this beach destination. It unwittingly changed the mode of tourists’ visit and sociability, it influenced the operation of small businesses, and it affected the land use zoning as well. The recreational experiences of tourists at Bangsaen Beach provide insightful information for planners to realign management strategies at this location for a long-term sustainable tourism.

5.1. Limitations
This paper is limited to four domains of recreation preferences and associated attributes to assess the outcome of the rezoning of beach open spaces; however, there are more attributes such as affective variables (exciting, cheerful, relaxing or pleasant) or cognitive variables (service quality, physiography, hospitality, or facility management). Further investigation on how these variables affect the visitors with the new normal and how the future planning of beach open spaces should be designed (such as beach open space plan design with separated functional zones for food, social, open air, and a higher quality of relaxed atmosphere) would lead to better insights.

6. Conclusion
This study started with the objective of finding out what are tourists’ recreational experiences at this beach, seeking out the spatial experiences of visitors, and understanding certain deficiencies in current tourism settings. Our investigation applied four types of REP domains: personal use of beach open spaces, usage of beach open spaces, social activities, and long-term goals, along with 23 attributes. These attributes encompass dimensions such as land use zoning, social distancing, beach open space and spatial experiences, however, we did not relate the research questions to beach crowding pre-pandemic and different types of tourist groups for marketing analysis. Moreover, attributes such as affective variables, cognitive variables, and historical variables could have been investigated.

Before the pandemic, there was only one small area of sandy beach open space near the Heritage Hotel for passageway, while the rest of the coastline was occupied by the umbrella seating sunbeds for paying customers. Visitors’ access to the beach open spaces were limited by purchasing seats in the umbrella seating zones. Due to this fact and seven zones of public sandy beach open spaces were newly implemented after the pandemic, our close-ended survey did not make direct comparison of experience before and after the change, however, our open-ended interview did offer some hints of positive experience with beach open spaces for rest and recuperation and mixed feelings of nostalgia with the past. This study found that visitors responded
positively to the rezoned seven sandy beach open areas and six umbrella seating zones, with social distancing policies imposed to fulfill the needs of public fitness and leisure enjoyment. Many visitors also strongly agree to the long term goals of protecting marine life, keeping the coast clean and accessible, and maintaining a scenic area with comfortable open beach space.

Based on the discussion regarding the functions and patterns of Pattaya versus Bangsaen, this study recommends the consultation of a Landscape Architecture firm to study the overall functions and patterns of land use zoning. With that, this study proposes a comprehensive rezoning of six umbrella seating zones into six independent clusters, thus to improve visitors’ spatial experience and social connectedness. Each cluster would have three sub areas with distinctive functions: food stalls, dense umbrella seating, and less dense cabana seating. Seven sandy beach zones embrace six redesigned clusters of umbrella seating zones acting as a public open space, which allows more diverse activities and is advantageous to personal, social, environmental, and economic events. These added features available to local residents and excursion tourists would expand better public experiences in outdoor recreation (Nyaupane, 2011). With separated but integrated functions of dining, social gathering, and ocean viewing, visitors can have a better experience and selection of choices of services at the beach. This study found that the beach rezoning and management strategy with social distancing rules implemented by the local government had a positive impact on tourists’ awareness of the coastal environment. Meanwhile, most visitors recognized changes made at the beach meeting the needs of public health and leisure requirements during the pandemic. Open spaces on the beach allow tourists to enjoy unobstructed views, sea breezes, picnics and relaxation in a socially distancing manner.

The new open space zone provides a socially suitable environment for improving an individual’s mental health, as long as it is properly managed according to the seating capacity. Establishing a positive connection between people and nature is the key to sustainable planning and management of open spaces (Chou et al., 2016). Land use zoning and satellite images provide historical and resourceful information for planners to analyze and synthesize. The survey of recreational experiences furnished insightful facts for planners to rewire the management strategies to confront the new normalcy of the pandemic that has brought us.

The scope of this study is limited to the 2.5 km stretch of coastline, the small vending businesses in the immediate area, and visitors in this vicinity. The study did not look into the effects of hotels, restaurants, and large commercial operations surrounding the locality. In addition, it was particularly challenging during the pandemic to conduct surveys and interviews, in a normal situation, these processes could have been engaged more thoroughly to include participation of different stakeholders such as sunbed vendors and specialty food stalls. However, this study is timely and applicable to many other tourist destinations in need of rethinking or realignment of their strategies. As G ossling et al. (2021) suggested, the pandemic offers us a time to pause and rethink about the direction that tourism is going amid this new normal and make the transition and transformation to sustainable tourism.

Acknowledgements
The authors would like to thank Miss Chidapha Authumphon and Miss Duangkamon Godprakon, students from Burapha University International College, Thailand, for their contribution of time and effort in the field survey assistance. Special thanks to the Deputy Mayor of Saensuk Municipality for the dedicated time in interview and input of helpful information.

Funding
The authors received no direct funding for this research.

Author details
Rungrapha Khamung 1
ORCID ID: http://orcid.org/0000-0002-4869-6970
Po Siu Hsu 2

E-mail: Paul.hsu@okstate.edu
ORCID ID: http://orcid.org/0000-0001-4705-7867
1 International Hospitality and Tourism Management Program, Burapha University International College, Saensuk, Thailand.
2 Landscape Architecture Program, Oklahoma State University, Stillwater, OK, USA.

Disclosure statement
No potential conflict of interest was reported by the author(s).

Citation information
Cite this article as: Social distancing and beach open spaces: Recreational experiences of tourists at Bangsaen beach after the pandemic, Rungrapha Khamung & Po Siu Hsu, Cogent Social Sciences (2022), 8: 2143056.
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