

# Research on the Design of Shared Camp Space in the Context of Post-epidemic Era

Kai Cao<sup>a</sup>, Ailin He<sup>b</sup>

College of Art and Design, Wuhan Textile University, Wuhan 430070, China

<sup>a</sup>Caokai78@vip.qq.com, <sup>b</sup>912958167@qq.com

**Abstract.** Since the outbreak of the new crown, people's lifestyles have undergone a radical change. Among them, people's travel plans have been greatly restricted. Based on the background of the post-epidemic era, this paper analyzes and compares the changes in people's life before and after the epidemic, and summarizes the connection between the changes and the "outdoor leisure" boom, and proposes corresponding shared camp space design strategies based on the current development status and realistic problems of shared campsites, respectively, from the rational division of shared camp functional areas, camp space design concept and camp detail design. The design strategy is based on the rational division of shared campgrounds into functional areas, the design of campground space and the design of campground details, so as to meet people's new needs for camping and establish a safe, environmentally friendly and ecological shared campground space.

**Keywords:** Post-epidemic Era; Outdoor Recreation; Camp Design.

## 1. Introduction

With the new crown epidemic raging, people's travel methods and destinations are greatly restricted, and the camping boom is emerging from the development of the epidemic era. The development of the camping tourism industry is the inevitable result of today's diversified travel needs. To meet the diversified needs of consumers with special facilities and equipment, is an important factor to support the flourishing of the camping industry. Compared to traditional camping, the outdoor equipment in the camping industry today is more sophisticated and complete, allowing people to feel the beauty of returning to nature from camping. The camping boom is currently in the free development stage, so the choice of campsites is mostly people looking for their own tourist campsites. With the surge in the number of people involved in camping, camping tourism also has a series of real problems such as irregular management of shared campsites, unsound facilities and damaged ecological environment. By combining the problems in the current camping tourism approach with the design of shared camping space, we provide a theoretical reference for having a safer and healthier camping environment for future outdoor travel.

## 2. The Relationship Between the Post-epidemic Era and Outdoor recreation"

Since the outbreak of the new crown epidemic in various countries in 2020, people's work and lives have changed dramatically. The rhythm of everyone in this world has changed as a result, from normal work to working from home, from school attendance to daily online classes, from smooth travel to daily home. In this epidemic environment, domestic and international tourism has been severely affected, and people are eager to return to their normal lives and to get out and relax. In the past, "outdoor sports" conjured up images of pushing oneself to the limit, hiking in uncharted territory or surfing on the other side of the world. However, due to the impact of the epidemic, today's young people are now more "hands-on" and operational, as their far-flung destinations may be just around the corner. Due to the epidemic, it is popular for modern young people to go camping and picnicking in the countryside, run a marathon on a park greenway near their home, go for a ride or Frisbee activity at a nearby lagoon park, and it seems that more and more people care more about their family and friends and have a healthier attitude towards life. The next chapter will analyze the changes in

“outdoor recreation” and the post-epidemic era from three perspectives: lifestyle, human psychology and travel patterns.

### **2.1 Lifestyle Changes**

Before the epidemic, people were living in order and in good order. Daily life also revolved around the four aspects of clothing, food, housing, and transportation, which went smoothly, but after the epidemic, people’s lifestyles were greatly restricted, and the biggest change was that travel became difficult. Before the epidemic, people were able to travel domestically and internationally, go to work and school, and travel was very convenient and their lifestyles were diverse. After the epidemic, all public transportation was suspended, everyone lived at home or in isolation, people learned to work and study online, some of them were separated from their families and learned to live alone, and others lived at home with their families for long periods of time. The emergence of the epidemic has trapped people in their homes, where they work, live and study, making travel a luxury. Because people are living at home for long periods of time, people’s hands are being exercised and they are beginning to cherish the time they spend with their families. However, they also want to interact with the outdoor environment and are eager to get out of their homes to breathe the natural air. This is one of the reasons why “outdoor recreation” has become a desired form of relaxation in the post-epidemic era, as human beings are expected to avoid gathering or closed activities due to the epidemic.

### **2.2 Changes in Human Mental Activity**

The process of changing human psychological state before and after the epidemic is from loose to tight, and everyone has psychological changes that they have never experienced before. We feel uneasy and distressed when people sense that danger is coming. At the time of the outbreak, people obtained relevant information about the epidemic through multiple channels and got themselves caught up in a variety of negative information, resulting in a large information burden and emotional over involvement. During this disaster, our lives became simply better, we could eat and sleep at home or hang out without any guilt, yet as the years passed by. Instead, our lives became more and more sad and irritable. Psychologists once conducted a sensory deprivation experiment in which subjects were allowed to survive for three days in a monotonous environment without sound, visual stimulation and touch, and the experiment proved that it is difficult for people to survive in such an environment. Restricted people are under varying degrees of psychological stress. They desperately need an outlet to release their different stresses, and in this case, the natural world without information distractions is what they are looking for, so after the epidemic, more and more people are willing to go into “outdoor recreation” to experience nature.

### **2.3 Changes in Travel Patterns and Plans**

Affected by the epidemic, people’s travel patterns and plans have changed accordingly. The number of people choosing to travel by public transportation, which is a relatively enclosed space, is gradually decreasing. Due to the confined nature of public transportation such as buses, railways and airplanes and the large number of people, the safety factor of the epidemic is reduced and there is a risk of epidemic protection. In view of the current epidemic prevention and control policy, which advocates “not to leave the province unless necessary”, people’s travel plans are generally short-term trips of 2-3 days, so suburban areas and short-distance travel destinations have become the majority of people’s choice. In the survey of epidemic travel destinations, more than 80% of people would choose the closest place to home, and most of them would not travel outside the city. It is clear that the epidemic has not only caused great inconvenience to people’s travel, but has also had an impact on the number and location of trips.

### **3. Shared Camp Formation Factors**

#### **3.1 The Rise of Outdoor Leisure**

The term “outdoor recreation” has been derived from the development of society. Outdoor recreation is a broader term than “rest” and “play”. The term “outdoor recreation” simply refers to leisure activities that take place outdoors, including hiking, biking, camping, etc. Since the arrival of the post-epidemic era, when the conventional tourism industry has been severely affected, “outdoor recreation” is often found in the holiday life of the general public. In the post-epidemic era, conventional tourism has been severely affected and “outdoor recreation” is often found in the holiday life of the public.

With the popularity of camping tourism and leisure, the younger generation has a new appreciation for new things and personal experiences. What used to be a high threshold outdoor activity is now a great outdoor activity to get out of the house and get in close contact with nature. After the epidemic, outdoor leisure activities have grown rapidly mainly because they can meet the needs of urban young people for offline entertainment, and they can also well satisfy their desire to share. According to a survey of the outdoor population, the “trendsetters” in outdoor sports are undoubtedly the new generation of the post-90s, with about 50%, and the post-90s and post-95s have entered society and are gradually maturing, becoming the main force of outdoor sports, as well as being the best in many outdoor sports, with the proportion of both reaching 50%. post-80s are the most important group members of the parent-child The most important group members in the outdoor group, accounting for more than 40% of outdoor leisure activities. The remaining 10% are the post-70s and post-60s. In the new outdoor sports, young people are also actively trying to discover more "ways to play" in order to enrich their recreational life [1].

#### **3.2 "Camping" has Become a Popular New Travel Style**

Since 2020, camping has become a household name. With the spread of the epidemic and the tightening of epidemic prevention measures, people are more willing to go outdoors to be close to nature. This outbreak of “camping fever” has certainly boosted the camping economy and camping has become popular. Camping scenes range from mountains, deserts, and grasslands to suburban lakesides, woods, and even urban parks, and camping is no longer just a “wilderness survival” experience, but a “sophisticated and petty” experience [2]. Gradually, it has become a temporary place of refuge. This spiritual and physical enjoyment makes camping a real “necessity”. Young people’s pursuit of “new ways to play” has contributed to the development of the camping industry. Combining camping with various outdoor sports, the simple way of camping has long become history, and the future of camping is full of infinite possibilities.

### **4. Analysis of the Current Situation of Shared Campgrounds**

#### **4.1 Camp Development Status**

The average size of campgrounds in 2021 is 230 acres, a slight increase from 2020, according to the Campground Data Survey. Most campgrounds are about 300 acres, up from 2020, with an increase in campgrounds of about 100-300 acres and an increase in campgrounds of 300-500 acres. There is a 40% difference in campground rental rates between the off-season and summer months. Chinese campgrounds will have an average of 35,000 visits per year in 2021, while the best Chinese campgrounds will have sales of 10.68 million per year. Half of these camping projects have a return on investment of less than 3%, while some urban campgrounds with small size and low total investment have a high return on investment.

## 4.2 Camp Distribution

According to the current distribution status of campgrounds in China, East China and North China coastal areas are still the leading campground development, and are in the top of the camping bases in 2021, according to the survey, the number of campgrounds in East China and North China is more than 50%. In East China, there are 400 camping sites, 310 of which have been built. In North China, there are 320 campsites; in South Central and Southwest China, there are 252 campsites and 200 campsites each; in Northwest and Northeast China, there are 170 campsites and 86 campsites [3].

Regarding the choice of camping sites, the answers are varied. In East China, areas with mountains and seas, forests and streams everywhere, and convenient transportation are the most popular areas; Southwest forests, lakes and snow-capped mountains also attract a large number of campers, making camping both comfortable and sacred; South China has ample sunny beaches, satisfying travelers' romantic dreams of camping on the seashore. The increase in camping boom in Northeast, North and Central China is due to accelerated camping programs across the region and continued outbound marketing by local visitors.

## 4.3 Problems in Camp Development

Behind the rapid growth in demand for camping tourism, there are actually some areas that deserve attention. One is the choice of campsites do not have the security and standardization of the problem, to the current composition of the Chinese camping enthusiasts, most of them are new players, usually spontaneous organizations to participate in camping activities, in the choice of campsites with a certain arbitrariness, coupled with the basic experience of outdoor life and lack of safety knowledge, to the development of camping has laid some great security risks. Second, the campground infrastructure support is not complete. The infrastructure construction of camping bases needs the guidance and support of the state. Campground construction often involves rural, collective, forest land, agricultural land, etc. The nature of the land and land property rights issues make the builders reluctant to make large-scale infrastructure investments [4]. The lack of infrastructure makes camping enthusiasts only stay at the preliminary experience stage, thus affecting the quality of the camping experience. The third is the problem of incomplete planning and management of campgrounds. For the long-term development of camping, the current planning involved in campgrounds is far from enough and requires the government to regulate its management and the industry to deepen its research.

# 5. Exploring the Design of Shared Camp Space

## 5.1 Camp Space Design Concept

With the emergence of different degrees of problems in the camping process, it is imperative to plan the construction of a good shared campground. Before thinking about how to build a good shared campground, the construction of a shared campground should follow several design concepts. The first is to build a safety-oriented campground. With the current campground development, safety is the most important, which needs to take into account fire safety, facility safety, epidemic prevention safety and other aspects. Secondly, the campground design should be green, in order to protect the environment, so that people can have a better camping environment, the construction of the campground should take into account the use of low-carbon environmental protection resources, reasonable classification and collection of garbage and other aspects. Finally, for the long-term development of "outdoor recreation", the campground construction concept should also achieve recycling and sharing, so that the campground construction period becomes longer and provide people with a better campground environment.

## 5.2 Shared Camp Functional Area Planning

The functional areas that a neatly organized shared camp should have include tent camping area, play area, dining area, fire area, water area, sanitation area, parking area, storage area and other areas [5]. The functional areas of the campground need to clearly delineate the boundary of each functional area and achieve a standardized division to avoid disorderly camping. Since the outdoor camping sites are natural environments, attention needs to be paid to fire safety to avoid artificial damage and pollution of the natural environment. The campground should also take into account the camping experience of customers, reasonably set up entertainment areas, convenient living areas and other infrastructure, and advocate people to camp without traces. The campground should also set up special storage areas and sanitation areas, and clean up the garbage at regular intervals in a timely manner to ensure the cleanliness of the site, so as to lay the foundation for long-term good use of the shared campground.

## 5.3 Shared Camp Space Facilities and Details Design

**Tent camping area:** each tent is spaced at least 2 meters apart, and all tents must face in one direction, that is, the doors of each tent are arranged in parallel. A line can be drawn around the tent area with lime to prevent snakes and reptiles from entering, or an electronic alarm device can be used. The tent location can be arranged by using the fixed points method of dividing the area by a line, or the tent platform can be built by using outdoor moisture-proof wood in the shared camp, the latter can make the tenting area better planned and the infrastructure more convenient. Outdoor hanging lights should be designed and installed around each tent location, and solar outdoor lights should be used as much as possible, which can ensure the safety of fire and electricity in the camp while using solar green energy to generate electricity, following the green concept of camp design.

**Activity and recreation area:** The activity and recreation area should be located downwind of the dining area to prevent pollution of food and tableware due to dust generated by the activity. The activity area can be set up with children's sand pit, safety trampoline, Frisbee field, happy farm and other entertainment facilities to increase the diversity of outdoor activities.

**Fire area and dining area:** The fire area should be 10 meters to 15 meters away from the tent area to prevent sparks from burning into the tent. The fire area should be located downwind. A special fire area should be set up in the camp fire area, and a metal outdoor burning platform should be built with fireproof materials to avoid direct contact between the fire source and the natural environment. For safety reasons, the dining area is adjacent to the fire area, but the two areas should be separated by at least 2 meters for cooking, cooking and dining.

**Water use area:** The water use area should be divided into edible drinking water area and domestic water area to avoid cross infection of water sources. If there is a fixed water source, the camp can install a fixed self-service drinking water station for the drinking water area. The domestic water area can use the rainwater collection system to collect water for use.

**Sanitation area:** The sanitation area should be kept at a distance from the dining area and at a distance from the activity area. The sanitation area can be close to the living water area so that water for toilet sanitation can use water collected from rainwater. Sanitary area should also set up environmental protection facilities such as garbage sorting and collection kiosks and food waste composting and fermentation barrels, turning the difficult point of garbage disposal into treasure, using food waste into sex composting treatment and applying fertilizer to the happy farm in the recreation area, so as to achieve real recycling and reuse.

## References

- [1] Chen Xi. "Post-pandemic era", Outdoor sports fashion report. China Conference and Exhibition (China Conference) .14(2022): p. 36-39.
- [2] Fu Xiao. The travel escape in the epidemic era Camping is the right thing to do. China Conference and Exhibition (China Conference).10(2022): p.30-33.

- [3] Su Feng. Outdoor leisure characteristics and development strategies. Contemporary Tourism 20.05(2022): p.64-66.
- [4] Information on: [www.CTNEWS.com.cn](http://www.CTNEWS.com.cn).
- [5] Wen Meiling. Research on the evaluation of service quality of tent campgrounds in China. MA thesis, Shanghai Institute of Sports, China 2018.