



Article

# A Landscape Study of Sichuan University (Wangjiang Campus) from the Perspective of Campus Tourism

Deqiang Cheng <sup>1</sup>, Chunliu Gao <sup>1,2,3,\*</sup>, Tiantian Shao <sup>1</sup> and Javed Iqbal <sup>4,5</sup>

<sup>1</sup> Key Research Institute of Yellow River Civilization and Sustainable Development & Collaborative Innovation Center on Yellow River Civilization Jointly Built by Henan Province and Ministry of Education, Henan University, Kaifeng 475001, China; 10340052@henu.edu.cn (D.C.); shaotiantian@vip.henu.edu.cn (T.S.)

<sup>2</sup> Department of Tourism and Landscape, Tourism School, Sichuan University, Chengdu 610064, China

<sup>3</sup> International Laboratory for Interdisciplinary Tourism & Heritage Research, Sichuan University, Chengdu 610041, China

<sup>4</sup> Key Laboratory of Mountain Hazards and Earth Surface Process, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Chengdu 610041, China; javediqbalgeo@gmail.com

<sup>5</sup> Department of Earth Sciences, The University of Haripur, Haripur 22620, Pakistan

\* Correspondence: 2017321060032@stu.scu.edu.cn; Tel.: +86-182-0285-6661

Received: 26 October 2020; Accepted: 4 December 2020; Published: 6 December 2020



**Abstract:** University campus tourism is an important component and extension of urban tourism. The campus landscapes at universities act as major reflections of the interaction between regional natural and humanistic environments and initiate a strong visual perception or sensory feelings of the campus, which play a positive guiding role in campus tourism resource development. In order to better understand the role of landscapes in campus tourism, the Wangjiang Campus of Sichuan University was selected as the study area. Campus landscapes under the comprehensive influence of natural and humanistic environments were studied based on three different multi-level (scale) perspectives including: (i) point scale, (ii) line scale and (iii) plane scale, as well as different research themes comprising: (i) landscapes of buildings and vegetation, (ii) color landscapes, (iii) landscapes of campus space utilization, and (iv) thermal landscapes. The results show that the Wangjiang Campus landscapes have strong environmental natural landscape components linked with strong humanistic landscapes, which may provide lively, positive and relaxed visual feelings to tourists in the form of affirmative landscape services. The formation and development of the campus landscapes are affected by the geographic environments and campus culture, and it is conducive to the formation of unique campus genius loci. Nowadays, the landscapes of Wangjiang Campus have become a distinctive visiting card of campus tourism. This study would be helpful in better understating of the campus landscapes using new perspectives, as well as could be used as references for the development of university-campus-tourism.

**Keywords:** campus tourism; multi-scale perspectives; color landscapes; Wangjiang Campus; thermal landscapes; landscape services

## 1. Introduction

In recent years, the university campus tourism is getting more and more attention because of its unique beauty and characteristics [1,2]. Massachusetts Institute of Technology (MIT) has allowed tourists to create their own tours, and there are also tours guided by students from Monday to Friday. Stanford University, Harvard University and many well-known universities also have similar arrangements as MIT [3]. Campus tourism not only brings tourists a different tourism experience,

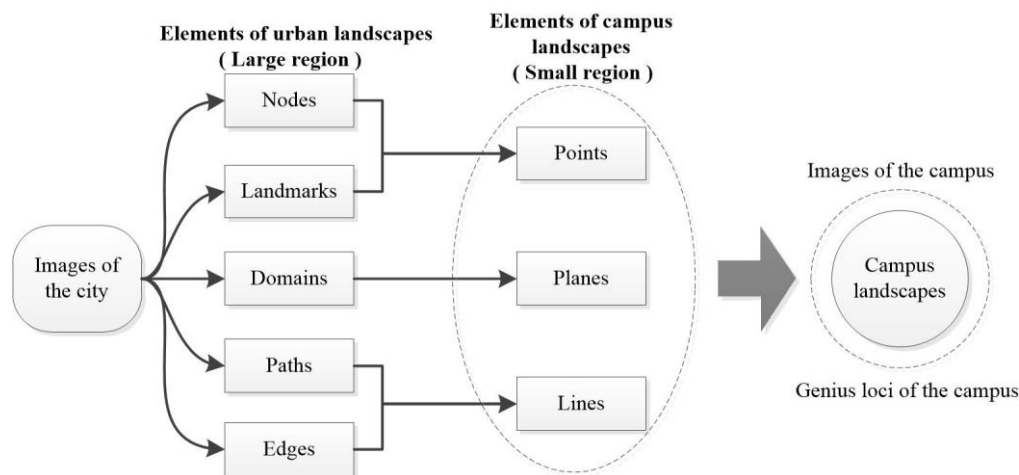
but also expands the influence of universities. Nowadays, the development of campus tourism has become a hot focus subject for current tourism researchers. Focusing on campus tourism, the driving force [4,5], image design [6,7], campus planning [8,9] and campus environmental development [10,11] have been studied by many researchers. Xu [12] elaborated the concept and characteristics of campus tourism, analyzed the advantages and constraints of the development of campus tourism, and discussed the relevant development strategies and steps. Zhao [3] took the “campus tour” of Tsinghua University in the summer of 2017 as a case to rethink the publicity of university campuses from the aspects of public awareness, public mechanism and public space level, and discussed the improvement strategies of “campus tour”. Through research on tourism at Chinese universities, Li [13] summarized the current situation and problems, and put forward some relevant suggestions.

The word “landscape” is first found in the Hebrew Bible, *the Old Testament*, and it originally meant natural scenery, ground morphology and landscape pictures, and was also used to imply the observer’s feeling and understanding of the environment [14]. At present, landscape research has penetrated into geography [15,16], ecology [17], tourism science [18,19] and many other disciplines. Interestingly, although landscape research has been applied in different disciplines, its specific concepts and meanings have become greatly different. For tourism study, tourism landscapes refer to the general term of visible objects that could attract tourists and be used for tourism development and utilization. Therefore, tourism landscapes do not consider the attribute characteristics of the objects but define objects by whether they could be used for tourism. Generally, these tourism objects could be natural or humanistic, also could be material or intangible, and they may also be derived from the research objects of ecology, geology, geography, society and other disciplines. These different objects converge together to form the tourism resources of a region [20]. Campus landscapes as an important component of the campus, are important parts of campus tourism, and could affect tourists’ travel decisions and experience through the visual and sense experience [21,22]. Good campus landscapes could provide a good travel experience to tourists, also act as an important window to spread the local culture of universities [23,24]. With the rapid development of higher education, more and more new campus of colleges and universities are being constructed. Many new campuses are facing the problem of homogenization which neglects the design of campus characteristic landscapes. New campuses often lack cultural accumulation and proper designs. Maybe, learning from other campus landscape design experience is a good solution to improve the campus characteristics. This study selected the Wangjiang Campus of Sichuan University as the study area, which has a nearly one hundred year history and comprises abundant landscape resources [25,26], in order to analyze the characteristics of campus landscapes from new different perspectives, and summarizes the experience of landscape construction. We hope that our study could provide useful references for campus landscape design.

## 2. Theoretical Framework

The word “campus”, originating from Latin, refers to the locus with spatial extensibility and academic atmosphere [27]. According to Norberg-Schulz’s phenomenological theory, a locus is generally composed of architecture, flowers, grass, trees, sky, doors and windows, pillars, day and night, seasons and people. Apart from the differences in the categories of the above elements, their shape, texture, color and other elements jointly determine the characteristics of the local environment, which is the essence of a locus [28], known as the *genius loci*. The campus is a special locus for education, which could contain characteristic natural and cultural landscapes. These landscapes are the main material carriers of the *genius loci*, reflecting the unique cultural connotation of the campus. With the development of society, great changes have taken place in university campuses. The university campus is no longer a closed academic monastery, but a more open “university city”, “academic village” or “tourist attraction” [29]. Connell [30] pointed out that it has become very common to use campus facilities and environment to hold conferences, social activities and tourism activities. A large campus is like a small city, but it is also an organic whole formed by people’s will more consciously than a city. Its *genius loci* could bring tourists a sense of identity and belonging [21].

As important parts of the city, the university campus landscapes could be considered as miniature urban landscapes, and they have some same characteristics in function and morphology [31]. The university campus is the laboratory of urban design, and is often regarded as the epitome of the city [32]. American urban planning expert Lynch ever stated the meaning of urban images in his book *“The Image of the City”* by using cognitive psychology and Gestalt psychology, aiming at doing the research of the loss of urban personality caused by disorder planning of urban morphology [33]. It was believed that beautiful and safe landscapes could leave an impression in the minds of the visitors and could help and guide people to identify the genius loci of a city. The paths, edges, domains, nodes and landmarks were summarized by him as five kinds of elements of urban landscapes. Among the five kinds of elements mentioned above, the paths are the most important elements and the main organization forms of city images. Their own forms, node links, borders, and signs along the paths could strengthen the images of the paths. The edges can strengthen the intention of different domains. The nodes are the key connection points, the intersection of roads, and the nodes of each domain. Domain elements can contain other elements. The core status can be determined and strengthened by setting up landmarks in an appropriate position. In fact, the five kinds of landscape elements proposed by Lynch are a typical “Point—Line—Plane” pattern structure (Figure 1).



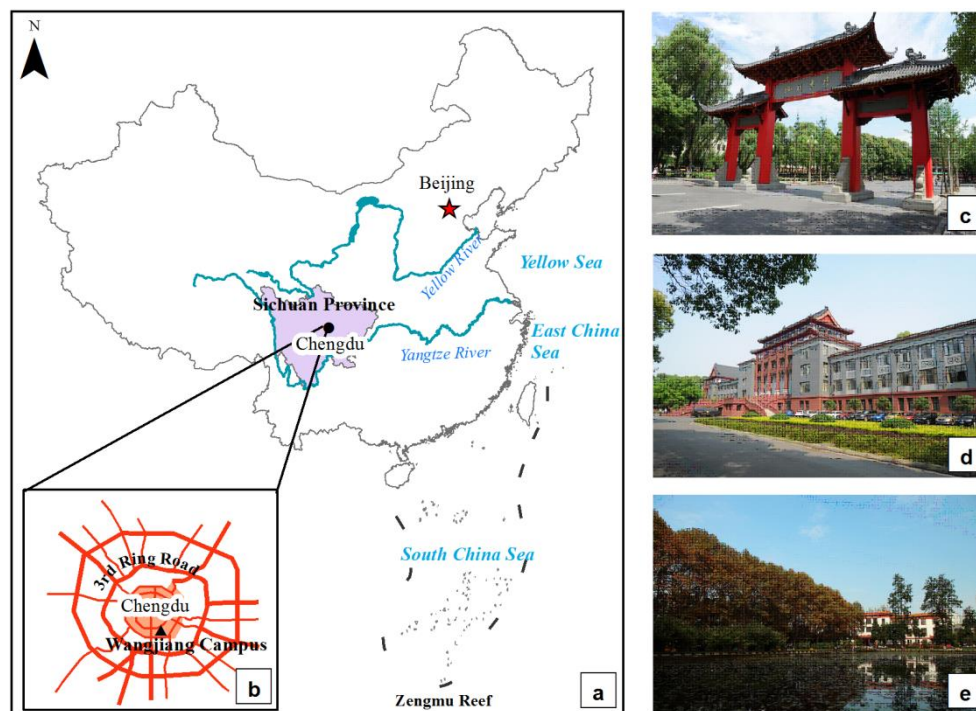
**Figure 1.** Theoretical framework of campus landscape analysis. This framework is derived from the theory of city images, but has been simplified by considering the characteristics of smaller research areas such as campuses. On this basis, the campus landscapes could be analyzed in order to support the exploration of campus images and campus genius loci.

As compared with a city, the area of university campus is relatively smaller, and the five elements of city images are more orderly in this unique locus [34]. In campus landscape system, nodes and landmarks are often regarded as point elements, such as independent buildings and structures; paths and edges are regarded as line elements; and domains refer to plane elements of different functional divisions [35]. The orderly combination of the three elements, point—line—plane, in the campus locus makes the campus recognizable and appreciable. The analysis on them is helpful to the exploration of campus images and genius loci. This paper would draw lessons from Lynch’s analysis method and research theory on the formation of city images. Taking the Wangjiang Campus of Sichuan University as the specific research area, field survey, photo taking, interviews and other works were carried out in order to observe, record and analyze the campus landscape elements of Sichuan University from three levels (also known as scales), point—line—plane, so as to explore the unique characteristics of campus landscapes under the scope of campus images and genius loci, also to facilitate the development of campus tourism (Figure 1).

### 3. Materials

#### 3.1. Study Area

Sichuan University was established in 1896 when Mr. Chuanlin Lu (the then Sichuan governor) set up Sichuan Chinese-Western School under the special mandate of the Guangxu Emperor [36]. Now, Sichuan University has three campuses, separately named Wangjiang Campus, Huaxi Campus and Jiang 'an Campus [37]. Wangjiang Campus is the main campus of Sichuan University. In 1935, Mr. Hongjuan Ren, as the principal of National Sichuan University, in consideration of the school's broken buildings, decided to employ domestic architectural design master Mr. Tingbao Yang to create a new plan and design close to the Jinjiang River, in order to build a new campus [38]. The reserved Chemical Building, Mathematical Building, and History Museum in Wangjiang Campus of Sichuan University were all built at that time. In 1994, Sichuan University combined with the adjoining Chengdu University of Science and Technology, and the two campuses were merged together [37], forming today's Wangjiang Campus of Sichuan University (Figure 2) [39]. The former Chengdu University of Science and Technology has many characteristic buildings, which have become important parts of the Wangjiang Campus of Sichuan University.



**Figure 2.** Location of Wangjiang Campus of Sichuan University and some typical buildings. (a) Chengdu's position in China; (b) Road network of Chengdu and location of Wangjiang Campus in Chengdu; (c) School gate of Wangjiang Campus, Sichuan University; (d) Administration Building of Sichuan University; (e) Tinghe Pool and History Museum of Sichuan University.

Wangjiang Campus is located in the subtropical region of China, affected by subtropical monsoon climate. The winter is comparatively warm here, and the average temperature of the coldest month is above 0 °C. The summer is hot, with the hottest month average temperature above 22 °C. For the subtropical monsoon climate, the seasonal variation of temperature is significant, and the four different seasons are distinct. Annual precipitation of the subtropical monsoon climate is generally 800–1500 mm with no obvious dry season [40,41]. Suitable natural environments could provide favorable conditions for the development of natural landscapes. On the other hand, after nearly 100-years development, the campus has accumulated rich historical and cultural heritages (Figure 2). Ranking among the

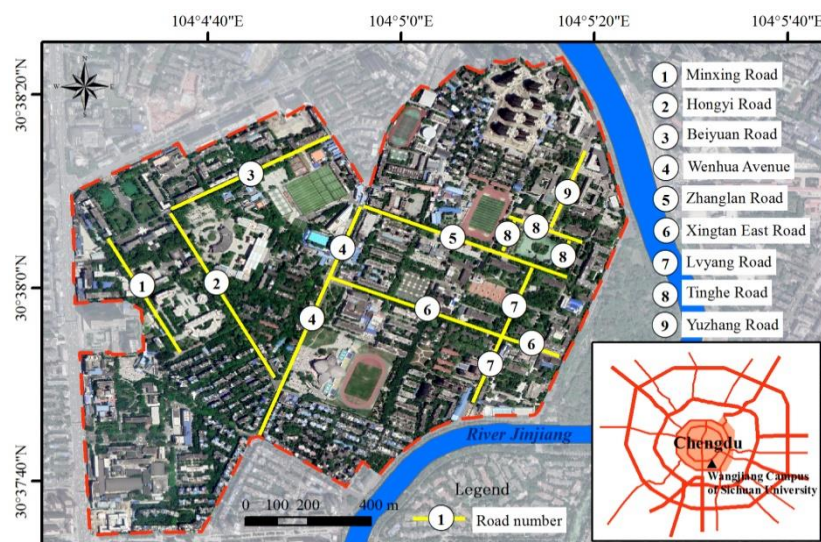


top ten most beautiful campuses in China [42], Wangjiang Campus has become a suitable object for studying the campus landscapes.

### 3.2. Data Collection

#### 3.2.1. Field Investigation

Google Earth is a useful software package that can generate a 3D representation of the Earth. The data source of Google Earth comes from satellite images, aerial photography, and GIS data [43,44]. It allows non-commercial personal use of images, and has gained favors of many scientific researchers [45]. In order to study the landscapes of the Wangjiang Campus, we downloaded the high-resolution remote sensing image of 2018 from Google Earth. The source of this image was from the satellite of DigitalGlobe which is an American commercial vendor of space imagery and geospatial content [46]. Based to the field investigation and the high-resolution remote sensing image data, the extent of the Wangjiang Campus, with an area of 1.44 km<sup>2</sup>, was outlined (Figure 3). Through the comparison among different roads, nine representative campus roads were selected as the main investigating objects of landscape-photo collection. Their details are listed in Table 1, which lists the name, length and surrounding buildings of each road.



**Figure 3.** Wangjiang Campus remote sensing image of Sichuan University in 2018. The nine selected roads have been marked in yellow.

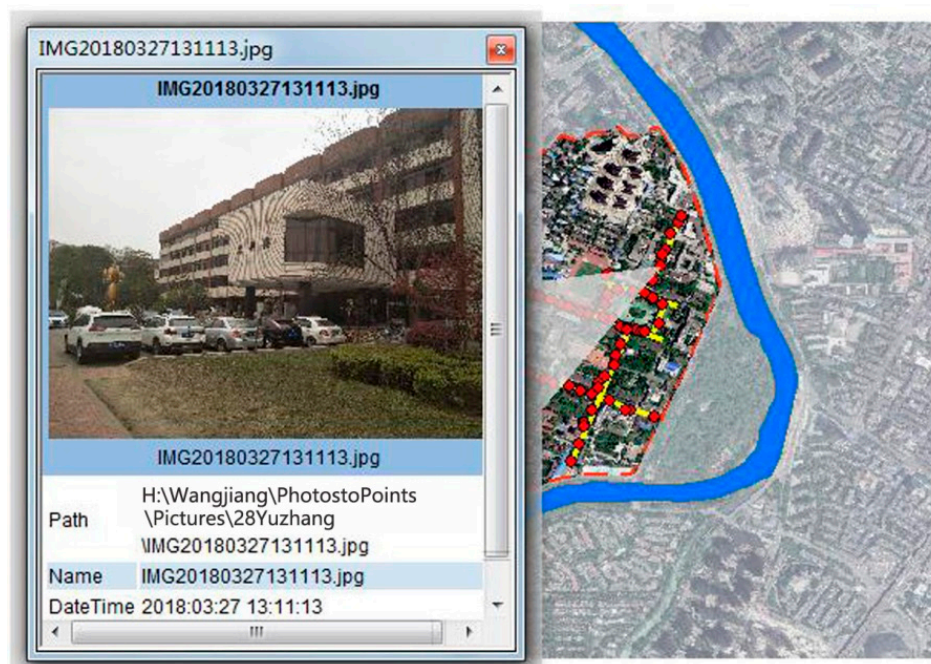
**Table 1.** Road information.

Road Number	Road Name	Road Length (m)	Surrounding Buildings
①	Minxing Road	415	Administration Building Yifu Technology Building Overseas Training Department Building Nanotechnology Building Minxing Building Hongjuan Building Shuanghe Ponds North Gate

Table 1. Cont.

Road Number	Road Name	Road Length (m)	Surrounding Buildings
②	Hongyi Road	598	Administration Building Engineering Library Comprehensive Teaching Building Faculty Residential Area Shuanghe Ponds North Gate
③	Beiyuan Road	492	West No.3 Teaching Building West No.5 Teaching Building Beiyuan Student Dormitory Area Boiler Room Volleyball Court Beiyuan Canteen Shuanghe Ponds North Gate
④	Wenhua Avenue	589	Wenhua Activity Center Student No.1 Canteen School Hospital Faculty Residential Area Wangjiang Gymnasium Bamboo Forest Canteen
⑤	Zhanglan Road	605	Student Dormitory Affiliated Experimental Primary School Chengyi Building Yiwen Building Zhiwen Building Kindergarten Playground Physics Building Tinghe Pond Zhili Building
⑥	Xingtian East Road	678	Student Dormitory Basketball Court Apartment for Young Teachers Huiwen Building Faculty Residential Area Ruiwen Building Cuiwen Building Mingli Building Dali Building
⑦	Lvyang Road	460	Zhiwen Building Physics Building Tennis Court Ruiwen Building Cuiwen Building Mingli Building Faculty Residential Area Swimming Pool
⑧	Tinghe Road	414	Bell Pavilion School History Exhibition Hall Chemical Building Zhili Building Zhiwen Building Physics Building Tinghe Pond
⑨	Yuzhang Road	262	School History Exhibition Hall Chemical Building Arts and Science Library Hongwen Building University for the aged Museum East Gate

Investigation of landscape photos of Wangjiang Campus was made using the digital camera with GPS function. 924 photos from the perspective of tourists (taking pictures by imagining oneself as a tourist), including panoramic photos, were obtained in March 2018. March belongs to the early spring of southern China. At such a time, the branches and leaves of trees are not too dense, and they do not block the buildings too much, which makes March become the best time to take photos. In the shooting process, the left and right sides of the road were photographed in the same shooting position. Compared with ordinary cameras, one of the advantages of the digital camera used in this investigation is that it has GPS positioning function. As a result, the longitude and latitude information of the location could be retained in the photo attributes. This kind of photos are also known as geotagged photos [47]. Using the “GeoTagged Photos to Points” tool of ArcGIS, the geotagged photos were converted to point features, and could be added as attachments to the features (Figure 4). The method above is helpful to manage and query the photo data. Using this way, we can look up the distribution of photos. In addition, we also carried out some simple interviews in addition to the collection of photo data through field investigation. As for the contents of the interviews, they are mainly based on the phenomena presented by the research results. Through the interviews, the research results could be explained and demonstrated to some extent.



**Figure 4.** Some investigating photographs of Yuzhang Road.

### 3.2.2. Remote Sensing Images

In addition to getting the high-resolution remote sensing image from Google Earth, we also used the Landsat 8 images. Landsat 8 is an American Earth observation satellite launched on February 11, 2013, carrying two main equipments: Operational Land Imager (OLI) and Thermal Infrared Sensor (TIRS) [48]. The OLI consists of 8 bands with a spatial resolution of 30 m and a 15-m panchromatic band, while the Landsat 8 TIRS could collect heat loss information of the Earth using two bands (Table 2). TIRS could be used to get thermal infrared remote sensing images that could be used to recognize surface features and retrieve surface parameters such as temperature, humidity and thermal inertia [49]. After comprehensive comparison of image data source quality, the remote sensing image of 5 June 2018 was downloaded from USGS website (<https://glovis.usgs.gov/app?fullscreen=0>) to retrieve the surface temperature. June has belonged to the summer of Sichuan Province, and the differences of surface temperatures in various areas of the campus were obvious.

Table 2. TIRS parameter.

Band Name	Central Wavelength ( $\mu\text{m}$ )	Minimum Band Boundary ( $\mu\text{m}$ )	Maximum Band Boundary ( $\mu\text{m}$ )	Spatial Resolution (m)
Band 10 TIRS 1	10.9	10.6	11.2	100
Band 11 TIRS 2	12.0	11.5	12.5	100

## 4. Methods and Technical Route

### 4.1. Campus Landscape Research Based on Nvivo Qualitative Analysis

NVivo is a qualitative data analysis (QDA) computer software package produced by QSR International (Melbourne, Vic, Australia), and it is now used by academic researchers across a diverse range of fields including anthropology, sociology, psychology, communication, forensics, tourism, criminology and marketing [50]. It supports multiple formats of data such as audio files, videos, digital photos, word files, PDF, spreadsheets, rich text, plain text, web and social media data [51]. It could help users organize and analyze non-numerical or unstructured data in order to classify, sort and arrange information; make joint analysis; and examine relationships. The researcher can test theories, identify trends and cross-examine information [52]. In this paper, the NVivo software was used to manage the collected photo data taken on Wangjiang Campus, Sichuan University in a unified way, and realize the systematic classification of the photo data, so as to analyze the vegetation and architectural landscapes corresponding to the point-scale landscape analysis [53].

### 4.2. Campus Color Landscape Analysis Based on Colorimpact

ColorImpact is a color scheme design tool for Windows platform, and it is easy to use and has many advanced functions [54]. For example, it can analyze advanced color schemes, build beautiful color schemes and export them. Now, ColorImpact is available for download as shareware, and could be used freely for 14 days after installation without any cost or obligation (<https://www.tigercolor.com/Download/>). In view of this, the relevant analysis of color landscapes of Wangjiang Campus was mainly carried out by using the ColorImpact color analysis software, and the colors of the collected photos were quantified, extracted and stored in different ways. Because color could affect people's psychology and physiology, different colors could make tourists have different feelings and affect their travel experience. Now, people are paying more and more attention to the choice of landscape plant colors and the creation of urban color landscapes [55]. Applying the perspective of color landscapes to study the characteristics of Wangjiang Campus is a practical and innovative perspective.

### 4.3. Landscape Pattern Index Analysis

Landscape pattern index reflects the structural characteristics of land use types [56]. Shannon's Diversity Index (*SHDI*) is a measurement index based on information theory, and it is widely used in ecology. *SHDI* is equal to the negative sum of the products of the each-patch-type area ratio and the natural logarithm of its value at the landscape level:

$$SHDI = - \sum_{i=1}^s P_i \ln P_i \quad (1)$$

where  $s$  is the amount of patches, and  $P_i$  is area ratio of each patch type.  $SHDI = 0$  indicates that the whole landscape is composed of only one patch, and the increase of  $SHDI$  indicates that the patch types increase, or the patch types distribute equally in the whole landscape. In a landscape system, the richer the land use is, the higher the degree of fragmentation is, as a result, the more uncertain the information content is, the higher the  $SDHI$  value is.



Shannon’s Evenness Index (*SHEI*) equals the ratio of Shannon Diversity Index to the maximum possible diversity under a given landscape abundance (all patch types are equally distributed). *SHEI* = 0 indicates that the landscape is composed of only one kind of patches without diversity; *SHEI* = 1 indicates that the patches are distributed evenly and have the greatest diversity:

$$SHEI = \frac{SHDI}{SHDI_{max}} \tag{2}$$

where *SHDI* is the Shannon’s Diversity Index, and *SHDI<sub>max</sub>* is maximum possible diversity under a given landscape abundance (all patch types are equally distributed).

In this paper, we would use *SHDI* and *SHEI* to do the analysis of campus-space-utilization landscape patter. The definition of “campus-space-utilization” inherits the concept of land use, but there are some differences. It is further subdivided according to the utilization of campus space, such as dividing educational buildings into study space, dividing grassy areas into green space, dividing canteens into service space, sports fields into sport space and dormitories into living space. This classification work needs the support of high-resolution remote sensing image interpretation and field investigation.

#### 4.4. Land Surface Temperature Retrieval Using Landsat 8 TIRS Data Based on Atmospheric Correction Method

Currently, there are mainly three kinds of surface temperature retrieval algorithms: atmospheric correction method [57], mono-window algorithm [58] and split-window algorithm [59]. In this study, Landsat 8 TIRS is used to retrieve surface temperature based on atmospheric correction method using the ENVI software. The basic principle of this method is to estimate the influence of the atmosphere on the surface thermal radiation firstly, then subtract this part of the atmospheric influence from the total amount of thermal radiation observed by the satellite sensors, so as to obtain the surface thermal radiation intensity, and then convert this thermal radiation intensity into the corresponding surface temperature.

#### 4.5. Technical Route

The methods used in this paper were described above. In order to make the structure of the article more clearly, the technical route was prepared as shown in Figure 5. In this study, the field survey photo data was used for analysis of point-based and line-based landscapes. Remote sensing images including high resolution image and TIRS data were used for the analysis of plane-based landscapes. By the combination of three different views of the analysis, the Wangjiang Campus landscapes could be understood better.

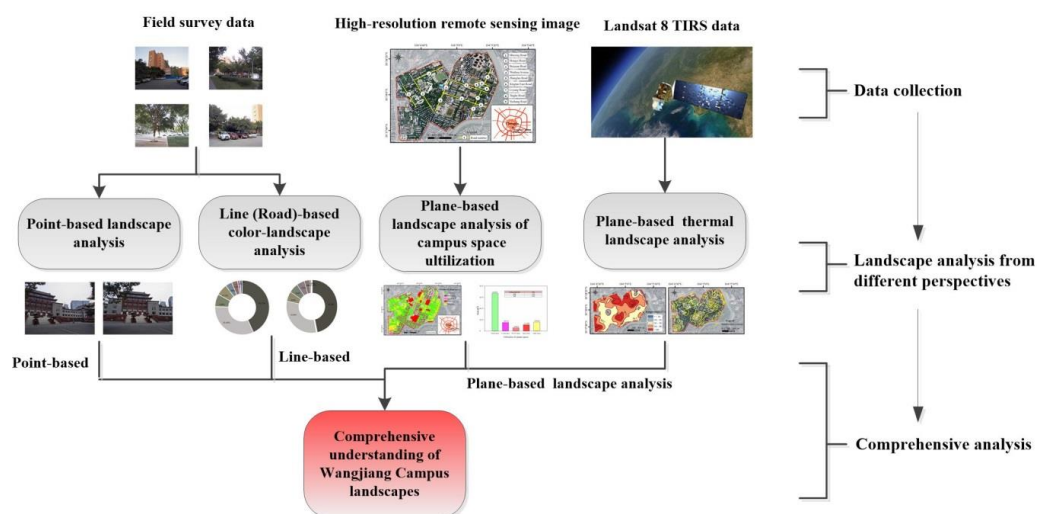


Figure 5. Technical route of this study.

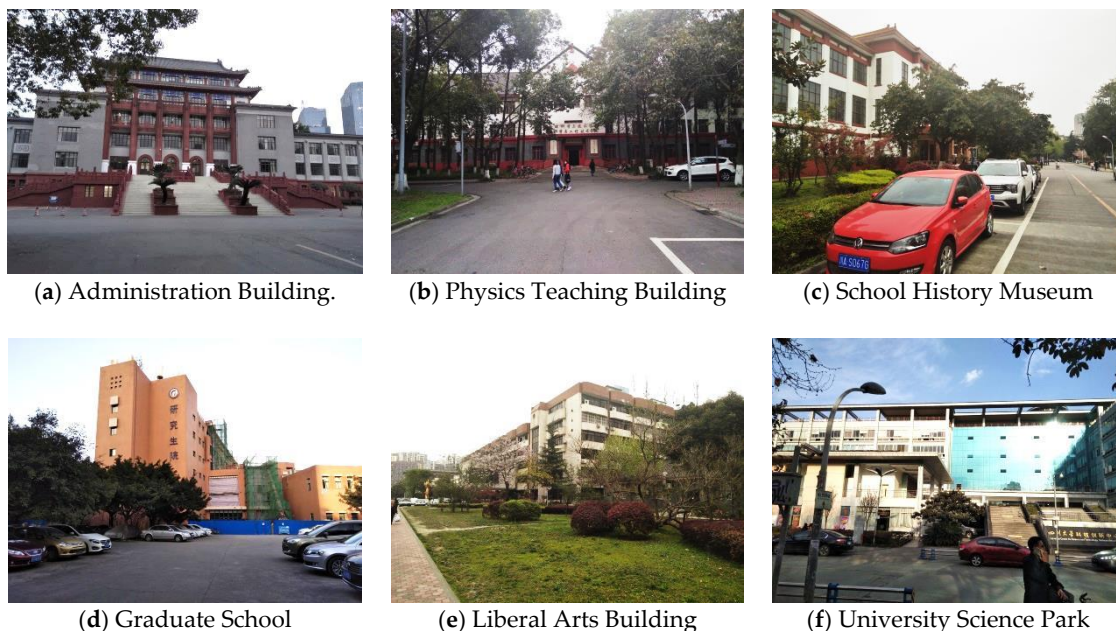
## 5. Results

### 5.1. "Point" Views: Campus Landscapes

#### 5.1.1. Architectural Landscapes

Architecture landscapes are not only important components of urban landscape images, but also the main body of campus landscapes by integrating with natural landscapes. In particular, the characteristic buildings of the campus can best reflect the characteristics of genius loci. The traditional buildings in western Sichuan are one of the traditional architectural schools, and they focus on the harmony of nature and environment. Housing materials are adapted to local conditions, materials and designs. The main building materials are wood, lime, black bricks and grey tiles. These local materials are not only economical, but also in good harmony with the environment, with a strong local flavor. It presents a texture beauty as well as the natural beauty. In order to adapt to the hot and humid climate, the traditional residential buildings generally have sloping roofs and thin eaves. The architectural color of folk houses in western Sichuan is simple and elegant. The vegetation in the western Sichuan plain is evergreen throughout the year, while the architectural color of the dwellings is very simple and mostly possesses the cold tones.

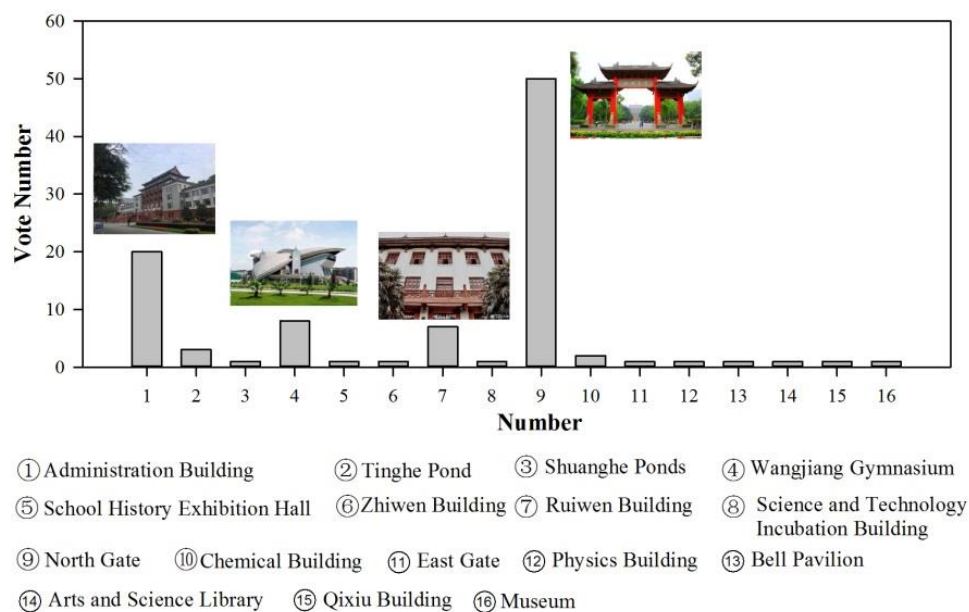
Through comparison, it could be found that the architectures of Wangjiang Campus not only include traditional buildings with local traditional residence characteristics (Figure 6a–c), but also have many modern buildings (Figure 6d–f). Generally, traditional architectures with the local architectural features mentioned above are important carriers of campus culture and genius loci. Modern architectures as another component of campus architectures of Wangjiang Campus are relatively lack of cultural connotation and characteristics. However, with the passage of time, they would be gradually given different cultural significances.



**Figure 6.** Campus architectures of Wangjiang Campus. (a–c) Campus architecture inheriting the characteristics of traditional residential buildings; (d–f) Modern architecture built in different ages.

Different kinds of buildings could leave different impressions which could also be transformed into the tourist's viewpoint on the university to a certain extent. In view of this, we printed photos of different buildings in the campus and asked 100 visitors to point out the most impressive buildings. This work could be seen as a simple interview, not as a questionnaire. The results are shown in Figure 7. It could be found that the buildings which impress tourists include both traditional and

modern buildings. Among them, the traditional buildings occupy the majority among the selected top buildings. Especially, the vermilion school gate impresses tourists most deeply and has become an important landmark of Wangjiang Campus. As a tourist said in an interview, “The vermilion gate of Sichuan University is really impressive. It can help people to feel the university culture and arouse people’s yearning for higher education. In this year, our whole family specially takes our child here to visit, hoping that he could be admitted to Sichuan University next year. We specially come here to take photos and encourage our kid.” The following buildings are also very characteristic buildings, including the majestic Administrative Building, the cleverly designed Wangjiang Gymnasium, and the traditional Ruiwen Building. Characteristic buildings are the focus of tourists’ attention in the process of sightseeing, which may lead tourists to the first impression of the school. These traditional buildings in Wangjiang Campus of Sichuan University give the tourists a chance to feel the profound historical and cultural heritage of Sichuan University.

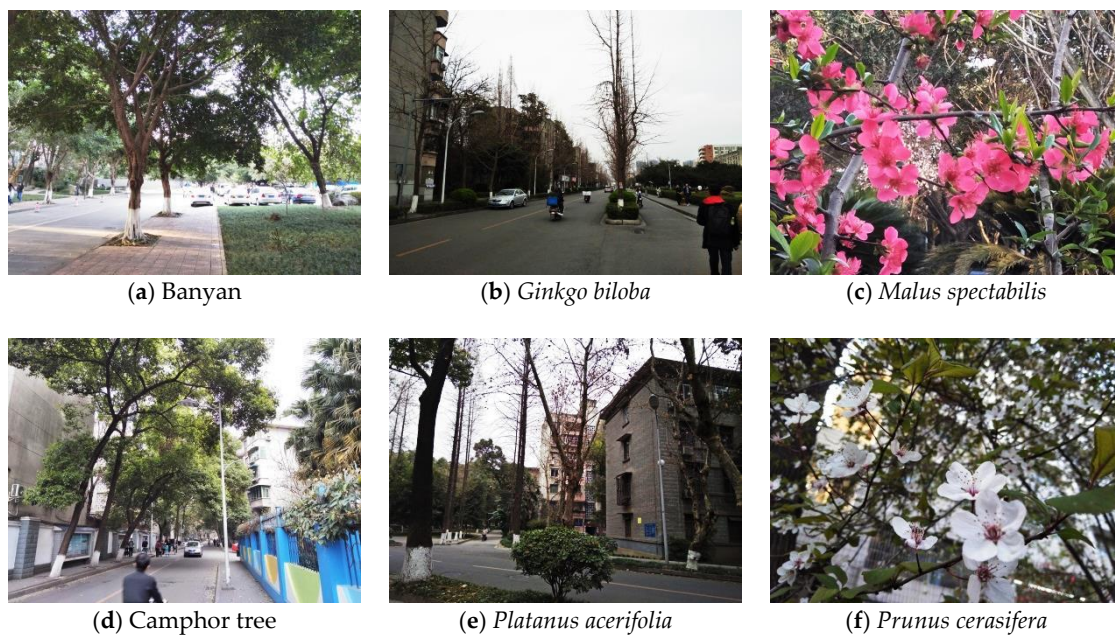


**Figure 7.** Vote statistics for different buildings.

### 5.1.2. Vegetation Landscapes

Wangjiang Campus has rich vegetation resources. According to the survey, there are 301 species of garden plants in the whole campus, including 69 species of arbors, 101 species of shrubs, 115 species of lawns and ground covers, four species of bamboos, nine species of lianas and three species of aquatic plants [25]. The suitable climate is an important reason for the formation of the rich vegetation resources in Wangjiang Campus. Various vegetation types have become an important embellishment of the campus landscapes, and they beautify the campus landscapes and attract visitors to stop and watch [39]. Based on the investigation, it could be found that the vegetation in Wangjiang Campus includes both local vegetation (Figure 8a–d) and exotic vegetation (Figure 8e–f). Especially, evergreen broad-leaf-forest species such as banyans and camphor trees could be still full of green and vitality in the bleak winter, and it would be more conducive to the improvement of campus landscapes.





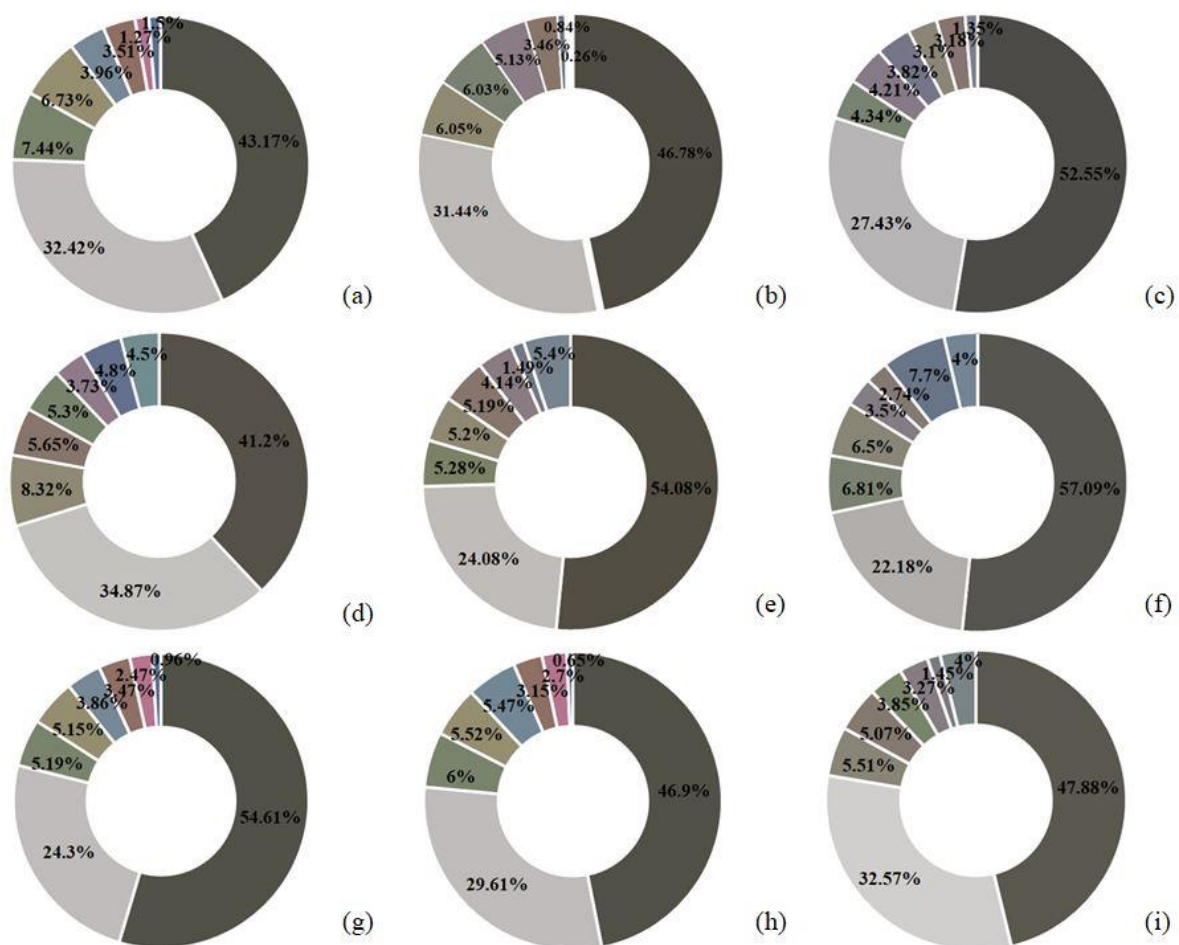
**Figure 8.** Campus Vegetation of Wangjiang Campus, Sichuan University.

### 5.2. “Line” Views: Campus Color Landscapes

Urban color landscapes refer to the color combination of visual objects in the external spaces of urban buildings. According to the different color sources, the color landscapes could be divided into two categories: artificial and natural. Roads, advertisements, signs, buildings, green spaces and rivers are all the carriers of color landscapes [60]. As important elements of urban landscapes, color landscapes may have an important impact on the quality of urban human settlements. Western countries have carried out research on urban color planning earlier, and have formed a relatively mature research system, which could provide powerful guidance and reference for the development of urban color landscapes [61,62]. Some application cases of urban color planning could provide a good reference for the development of urban color theory. For example, London takes khaki as its main color, and beige is the main color for Paris, while Beijing takes compound grey as the main color. Many large and medium-sized cities have achieved initial results in exploring the mode of color planning, design and management [63]. It is of positive significance to expand the research and application of urban color planning.

As important parts of urban landscapes, campus color landscapes also deserve attention. Through the analysis of photographs and color rings of nine main roads in Wangjiang Campus, it could be found that green as a natural base color occupies a large proportion. Especially for Lvyang Road (Figure 9g), vegetation has an important impact on the landscapes of the road. In addition, the grey mainly from walls and roads also plays an important role along Lvyang Road. Comparatively, the color distribution of Wenhua Avenue is relatively uniform (Figure 9d). From the perspective of environmental psychology and color psychology, different color combinations give people different experiences. For example, red could make people feel warm; green could make people feel relaxed, stable and peaceful; blue could make people calm; and black could make people feel solemn and depressed [64]. Therefore, the visual experience of these nine roads is obviously different. For students and staffs in the teaching buildings, a large proportion of green landscapes (Figure 9f,g) can not only effectively alleviate the fatigue and tension after teaching and learning, but also attract a large number of tourists and nearby residents to take a walk and sightseeing here.





**Figure 9.** Landscape color rings along different roads. (a) Color ring of Minxing Road; (b) Color ring of Hongyi Road; (c) Color ring of Beiyuan Road; (d) Color ring of Wenhua Avenue; (e) Color ring of Zhanglan Road; (f) Color ring of Xingtian East Road; (g) Color ring of Lvyang Road; (h) Color ring of Tinghe Road; (i) Color ring of Yuzhang Road.

### 5.3. “Plane” Views: Utilization of Campus Spaces and its Thermal Landscapes

#### 5.3.1. Utilization of Campus Spaces

Land use involves the management of natural environment. For example, we can transform wilderness into dwelling environment and semi-natural habitats such as cultivated lands. Different land uses create different landscapes. For most university campuses, land use types are relatively single, mainly including construction lands and vegetation lands. However, considering different functions, the different architecture landscapes could give people different experiences and feelings. Therefore, we divided campus space into five categories: (i) green space, (ii) living space, (iii) service space, (iv) sport space and (v) study space (Figure 10) based on manual interpretation and field investigation. Green space occupies a large proportion according to the area statistics of different campus spaces (Figure 11). There is a little area difference between living space and study space. The areas of sport space and service space are smaller than other spaces.

We introduced the landscape pattern index analysis methods to analyze the landscape characteristics of campus space utilization. Based on the calculation results of SHDI (1.2306) and SHEI (0.7646), it can be found that Wangjiang Campus has rich and diverse campus-space-utilization landscapes, and the distribution of various landscapes is relatively uniform (Figure 11).

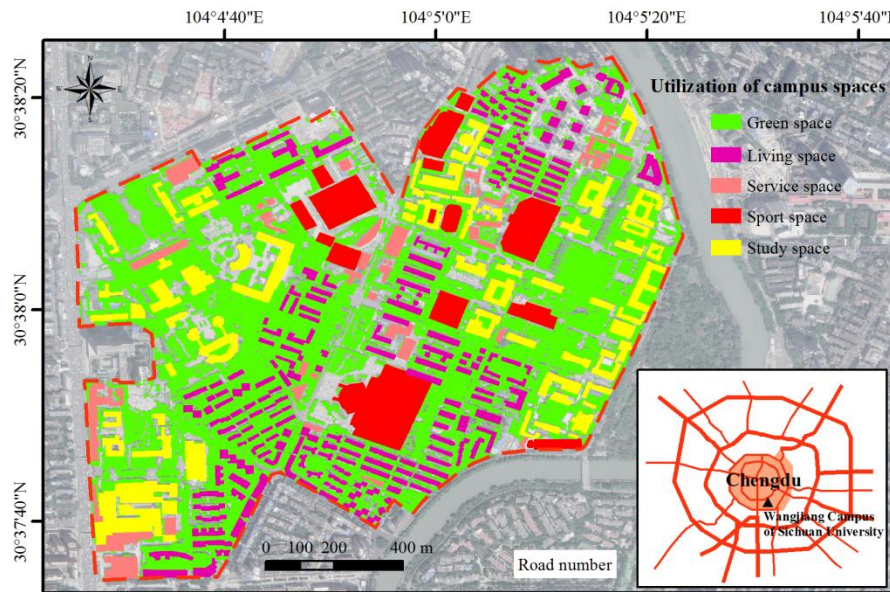


Figure 10. Utilization of campus spaces.

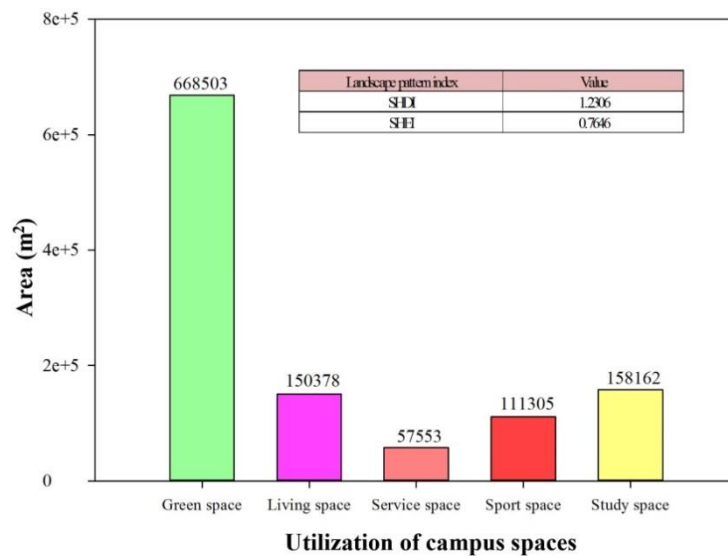


Figure 11. Area statistics of campus-space-utilization landscapes and landscape pattern index analysis.

### 5.3.2. Thermal Landscapes

People often attach importance to the study of visual landscapes in landscape research. However, the role of landscapes in campus tourism should consider not only the visual impact, but also the impact of the external environment on tourists. In addition to buildings, roads, trees and other physical landscapes, thermal landscapes as invisible virtual landscapes also have an important impact on people’s emotions and travel decisions [65]. However, thermal landscapes are often ignored in the traditional landscape analysis [66]. Thermal landscapes refer to the landscapes that could be experienced through the cold and hot feelings of human skins. Different thermal landscape environment would produce different stimulation to sensory organs, which determines the complexity of campus landscape environment [67]. Based on Landsat 8 TIRS data, the surface temperature of the campus was calculated and the thermal landscape characteristics of the campus were obtained (Figure 12). It could be found that there are different high and low temperature zones in the whole campus. The low temperature areas are mainly distributed in the areas with abundant vegetation or around water channels and reservoirs. Relatively speaking, the dense building areas, especially the sport spaces, become the high

temperature area. Therefore, it is suggested that during the summer season, the travelers should try to avoid the high temperature area in order to minimize the chances of bad experience and feelings.

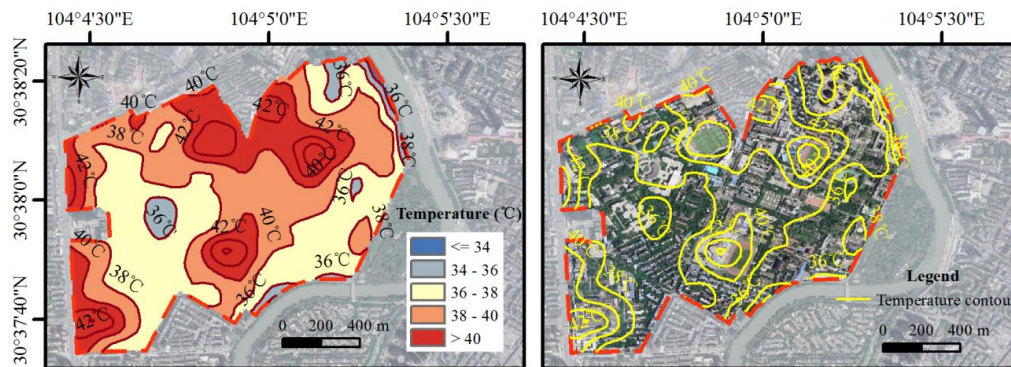


Figure 12. Thermal landscapes.

5.4. Optimal Path Planning of Campus Tourism

Architecture and vegetation landscapes may give people different visual experience. Color landscape may bring unique color visual impact to tourists. Different land use could bring different experience to tourists, and thermal landscape could affect tourists' comfort while visiting [67]. As the visitor said in an interview, "We like to come to the administrative building. We usually bring our grandson here when we are free on weekends. The red and white traditional buildings here are quite distinctive. Especially, the square and lotus in front of the building are very beautiful." Considering the above landscape characteristics of different scales, an optimal path planning of campus tourism could be made. We could find that North Gate of Sichuan University is absolutely attractive to tourists, and it is also the landmark landscape of the school. Most tourists would choose to visit the school from here. Administrative Building, Wangjiang Gymnasium and School History Exhibition Hall are representative architectural landscapes far away from the dioceses and are also the areas with strong openness to tourists. Considering these factors, the route is selected to enter the campus from North Gate of Sichuan University, passing through Administration Building, Wangjiang Gymnasium, Ruiwen Building, School History Exhibition Hall, Hongwen Building and other important buildings, so as to enjoy the natural and cultural landscape of the campus (Figure 13). After the tour, visitors can leave from the east gate of the campus.

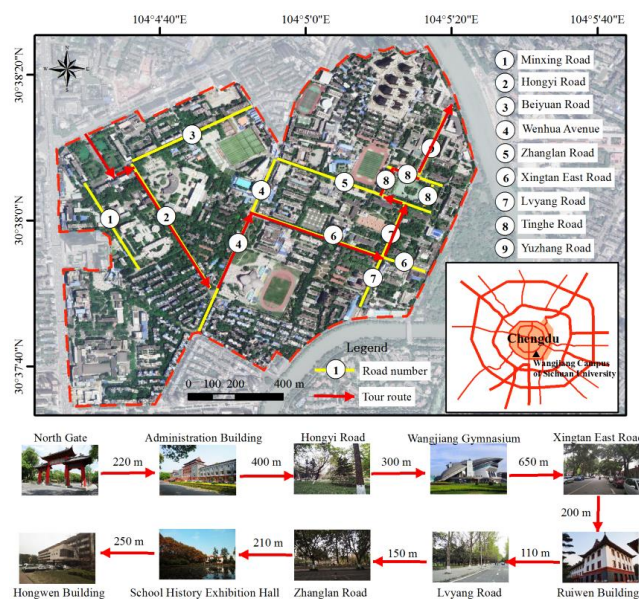


Figure 13. Optimal path planning of campus tourism.



## 6. Discussion

The campus landscapes in universities are the result of the interactions between the regional natural and humanistic environments. They could generate a strong visual perception or sensory feelings for campuses and play a positive guiding role in campus tourism resource development. Nowadays, more and more scholars are paying more and more attention to the study of campus landscapes [68–70]. We draw lessons from the characteristics of scale study (point-line-plane), and also introduce the method of scale study in the study of campus landscapes. Only by dividing it into different scales, can we reveal the landscape characteristics better. Qualitative analysis is the most commonly used method for the analysis of vegetation and buildings on point-scale [71]. For the line-scale color landscape analysis, many scholars have tried to use photos to achieve color landscape analysis [60,72,73]. Nowadays, the remote sensing images have been widely applied to the study of campus landscapes. For example, Gao [74] used remote sensing images to study the color landscapes of the campus of Northwest University. With the help of remote sensing images, the landscape pattern index of land use based on the utilization of campus spaces on the plane-scale could reveal the land use characteristic. The diversity and uniformity of campus functional areas could meet the relevant requirements of school planning and design, and also meet the learning and living needs of teachers and students [75,76]. Generally, many scholars only consider the temperature factor when they study the urban heat island effect [77]. We put forward the concept of thermal landscape. With the help of remote sensing technology, the thermal distribution is shown, which provides a new idea for landscape research, also could be used as an expansion and an extension of related research.

In a sense, the genius loci are the spatialization of people's memory of loci. Through unique colors, morphological structures and internal functions, people could get senses of identity, pride and belonging in the loci [78]. For the campus of Sichuan University, the genius loci of Wangjiang Campus are a complex with certain recognition based on specific natural and humanistic backgrounds. In the modern society where the campuses have become tourism products, the power spirit contained in them have been gradually dispelled. The spirits of equality and democratization in modern society have broken the physical and psychological boundaries with these majestic loci. Tourists can not only enter these loci, but also gaze and experience the aesthetic objects [79]. From the perspective of tourism experience, the campus landscapes composed of different-scale elements are the material carriers to attract tourists. The colors, atmospheres and images of campus genius loci are the fundamental to stimulate tourists' psychology.

Campus tourism is a new type of tourism activity by taking colleges and universities as its tourism destination. It is also a part of modern urban tourism and cultural tourism [80]. By the end of 2019, at least 15 colleges or universities in China had been approved as national 3A or above scenic spots. The total number of tourists visiting colleges or universities across the country during holidays exceeds 10 million [81]. The number of tourists is growing at a rate of more than 20% every year [81]. The rise of university tourism is closely related to the development of landscape planning discipline. For many universities in the world, the unique campus landscapes are the representative of art, a part of the local people's life, and an important basis for the development of university-campus-tourism [82]. The university-campus-tourism has brought great social impact and could promote the rise of various industries in the city [83]. At the same time, the rise of university landscape design and university tourism symbolizes that landscape enjoying is no longer a privilege enjoyed by a few people, and has become a part of people's life [84].

The number of Chinese universities ranks third in the world. As a feature of the development and utilization of university resources, university campus tourism has become the expectation of the society for colleges and universities, and it is also a problem needed to be solved in the fields of landscape architecture and urban planning. At present, in the process of carrying out university tourism activities, many colleges and universities are afraid that university tourism activities may affect the normal teaching order, so they deliberately inhibit the development of university tourism [85]. For most colleges and universities, the campus landscape environment construction has not been given



enough attention in the past. Due to the lack of tourism planning, the quality of tourism environment in colleges and universities has declined seriously. Although the university tourism characteristic landscapes have an important significance to promote the university tourism culture establishment, in fact, most of Chinese colleges and universities with the potential tourism resources have not carried out good university-campus-tourism construction activities, and the theoretical research and practical activities about university-campus-tourism characteristic landscapes are merely at the initial stages. Based on this reality, this study takes the Wangjiang Campus of Sichuan University as a specific case to analyze the landscapes of campus tourism from three levels of "Point-line-plane", which is not only a bold attempt, but also be hoped to provide references for the scientific design of campus tourism landscapes and the rational utilization of landscape resources.

## 7. Conclusions

In this study, Wangjiang Campus of Sichuan University were selected as the research area. The campus landscapes under the comprehensive influence of natural and humanistic factors were studied based on three different perspectives, also known as three scales, point-line-plane. Building and vegetation landscapes, color landscapes, landscapes of campus space utilization and thermal landscapes were chosen as the research objects. The following conclusions are drawn:

- (1) Wangjiang Campus landscapes take natural landscapes as base and are attached with strong humanistic landscapes, which could bring tourists a lively, positive and relaxed feeling as positive landscape services. In particular, the interaction between traditional buildings and local vegetation has a greater attraction for tourists.
- (2) The formation and development of the campus landscapes are affected by the geographic environment and campus cultural heritage. Some landmark buildings have strong characteristics and could play a prominent role in the image of tourist destination.
- (3) High vegetation coverage is a major feature of Wangjiang Campus, and it plays a leading role in tourists' color perception. Color landscapes along different roads have obvious color differences which may bring different experience to tourists. In the future tourism development, it is proposed to consider the role of color landscapes.
- (4) Wangjiang Campus has rich and diverse campus-spaces-utilization landscapes, and the distribution of various landscapes is relatively uniform. The diversity and uniform distribution of different spaces not only facilitates the life of teachers and students but also reduces the monotony of campus travel, which is conducive to attract tourist's attention.
- (5) The thermal landscapes of the campus show that there are several high temperature areas in summer, so it is suggested to avoid these areas when planning the campus tourism route in order to minimize the discomfort of body feelings.
- (6) Comprehensive consideration of the characteristics of different campus landscapes at different scales is conducive to the design and planning of more reasonable campus tourism routes, which could help tourists have a better experience in campus tourism.
- (7) The campus landscapes of the Wangjiang Campus of Sichuan University have become a distinctive visiting card of campus tourism. The outcomes of this study would help people better understand the importance of landscapes to campus tourism and could act as references for the development of university campus tourism at other locations.

**Author Contributions:** C.G. designed the method, conceived the experiments. D.C. analyzed the data; and D.C., C.G., T.S. and J.I. wrote the paper. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was supported by the Research Start-up Fund of Henan University (No. CX3050A0250560), the Special Funds for Basic Scientific Research Services of the Central University (No. 2012017yjy137), Chinese Academy of Sciences President's International Fellowship Initiative (grant No. 2021VCB0003), and the National Natural Science Foundation of China (No. 41601377).

**Acknowledgments:** Using this paper, we commemorate our campus life in Chengdu and our lost youth. At the same time, this paper would be regarded as a gift for the 124th anniversary of Sichuan University. If possible, please remember to come to Sichuan University, a place worth loving.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Lu, H. A review of ethnic-college tourism in China. *Guizhou Ethn. Stud.* **2008**, *28*, 118–128.
2. Magolda, P.M. The campus tour: Ritual and community in higher education. *Anthropol. Educ. Q.* **2000**, *31*, 24–46. [[CrossRef](#)]
3. Zhao, J. Summer tourist season and the publicity of a university campus: The case of Tsinghua University. *Urban Des.* **2017**, 70–77. [[CrossRef](#)]
4. Li, Z.X. *A Study on the Development of Tourism in Universities—Take the Universities in Wuhan for Example*; Central China Normal University: Wuhan, China, 2009.
5. Chickering, A.W.; O'Connor, J. The university: A driving force for collaboration: Learning center. *About Campus* **1996**, *1*, 16–21. [[CrossRef](#)]
6. Han, P. On the humanization in the image design of the campus landscape. *J. Qingdao Tech. Coll.* **2011**, *24*, 69–72.
7. Johnson, C. Approaches to contemporary campus landscape design. *Plan. High. Educ.* **1994**, *22*, 1–7.
8. Yahres, M.V. What should stay put? Campus landscape planning for the long term. *Facil. Manag.* **2000**, *16*, 35–38.
9. Zhang, W.; Li, C. The application of landscape ecology in campus landscape planning. *Adv. Mater. Res.* **2013**, *610–613*, 3832–3836. [[CrossRef](#)]
10. Fan, L. Research on development tendency of college campus environmental landscape design in China. *J. Landsc. Res.* **2012**, *40*, 9380–9447.
11. Zheng, Z.Q.; Wen, L.X.; Zeng, D. Research and development of the campus landscape plant systems—A case study of Guangzhou University. In Proceedings of the 2nd International Conference on Information Science and Engineering, Hangzhou, China, 4–6 December 2010; pp. 5987–5993.
12. Xu, L. On campus tourism—A new subject on the exploitation of culture tourism resources. *J. Guilin Inst. Tour.* **2000**, *11*, 35–37.
13. Li, M. Research in campus tourism: Actuality, problems and advice—A literature review of 10 years research in campus tourism in China. *Resour. Dev. Mark.* **2007**, *23*, 574–576.
14. Farina, A. Principles and methods in landscape ecology. *Austral Ecol.* **2006**, *33*, 361–362.
15. Mitchell. Cultural landscapes: The dialectical landscape—Recent landscape research in human geography. *Prog. Hum. Geogr.* **2002**, *26*, 381–389. [[CrossRef](#)]
16. Cosgrove, D. The myth and the stones of venice: An historical geography of a symbolic landscape. *J. Hist. Geogr.* **1982**, *8*, 145–169. [[CrossRef](#)]
17. Palmer, G.C. Principles and methods in landscape ecology: Towards a science of landscape. *Austral Ecol.* **2010**, *33*, 361–362. [[CrossRef](#)]
18. Daugstad, K. Negotiating landscape in rural tourism. *Ann. Tour. Res.* **2008**, *35*, 402–426. [[CrossRef](#)]
19. Mcgregor, J.A. The victoria falls 1900–1940: Landscape, tourism and the geographical imagination. *J. South Afr. Stud.* **2003**, *29*, 717–737. [[CrossRef](#)]
20. Terkenli, T.S. Tourism and landscape. In *A Companion to Tourism*; Blackwell Publishing Ltd.: Hoboken, NJ, USA, 2004; pp. 337–348.
21. Dober, R.P. *Campus Landscape: Functions, Forms, Features*; John Wiley & Sons: Hoboken, NJ, USA, 2000.
22. Bardekjian, A.; Classens, M.; Sandberg, L.A. Reading the urban landscape: The case of a campus tour at York University, Toronto, Ontario, Canada. *J. Environ. Stud. Sci.* **2012**, *2*, 249–256. [[CrossRef](#)]
23. Toth, E. Teaching contested university histories through campus tours. *Transform. J. Incl. Scholarsh. Pedagog.* **2017**, *27*, 104–112.
24. Zhao, K.; Ren, J. Thoughts and suggestions on campus landscape construction under the background of campus tourism—Taking Tsinghua University as an example. *J. Anhui Agric. Sci.* **2017**, *45*, 177–180.
25. Yang, J.; Bai, J. Building an ecological campus with green plants—An analysis of the deployment of landscape plants in Wangjiang Campus of Sichuan University. *J. Chin. Urban For.* **2010**, *8*, 25–27.
26. Qi, Q. Discussion on the landscape design of garden-style campus. *North. Hort.* **2011**, 121–124.

27. Liu, Q. *Research on Green Space Design of Campuses Based on Place-Making Theory*; Harbin Institute of Technology: Harbin, China, 2014.
28. Norberg-Schulz, C. Genius loci: Towards a phenomenology of architecture (1979). *Hist. Cities Issues Urban Conserv.* **2019**, *8*, 31.
29. Press, L. Tomorrow's campus. *Commun. ACM* **1994**, *37*, 13–17. [[CrossRef](#)]
30. Connell, J. A study of tourism on university campus sites. *Tour. Manag.* **1996**, *17*, 541–544. [[CrossRef](#)]
31. Lu, M.; Yang, P.; Li, D.; Wang, S. The university campus landscape planning concept design: Taking the new campus of Shandong Jianzhu University as an example. *J. Shandong Jianzhu Univ.* **2013**, *28*, 197–203.
32. Hu, X.; Wu, W.; Hong, J.; Wang, Z. Aggregation and decentralization: The new trend of modern comprehensive university campus development. *Archit. J.* **2002**, 18–19.
33. Lynch, K. Reconsidering the image of the city. In *Cities of the Mind*; Springer: Boston, MA, USA, 1984; pp. 151–161.
34. Chen, S.; Chen, K.; Xu, M. Campus landscape and cultural integration—Guilin institute of tourism new campus landscape design idea. *Chin. Agric. Sci. Bull.* **2010**, *26*, 244–248.
35. Pan, L. *The Study in City-Wide Green Space System Planning about Points, Lines and Faces*; Nanjing Forestry University: Nanjing, China, 2006.
36. Cui, X. *Research on the Plant Landscaping of Old University Campus in Chengdu—Take Sichuan University and Southwestern University of Finance and Economics for Example*; Southwest Jiaotong University: Chengdu, China, 2008.
37. SCU. About SCU. Available online: [http://en.scu.edu.cn/About\\_SCU.htm](http://en.scu.edu.cn/About_SCU.htm) (accessed on 5 May 2019).
38. Wang, D. State in the higher education under the republican reign: Nationalization of Sichuan University (1925–1939). *Soc. Sci. China* **2004**, *3*, 180–193.
39. Bai, J. Investigation and analysis of campus greening of Sichuan University in Chengdu. *J. Sichuan For. Sci. Technol.* **2011**, *32*, 60–69.
40. Qian, T.; Zhao, P.; Zhang, F.; Bao, X. Rainy-season precipitation over the Sichuan basin and adjacent regions in southwestern China. *Mon. Weather Rev.* **2015**, *143*, 383–394. [[CrossRef](#)]
41. Guo, X.M.; Chen, J.; Zhao, T.L.; Zheng, X.B. Climate characteristics of haze and its impacting factors from 1961 to 2010 in Sichuan basin. *J. Meteorol. Environ.* **2014**, *30*, 100–107.
42. CHINDIA. Top 10 Most Beautiful Universities in China. Available online: [http://www.sohu.com/a/165512564\\_556622](http://www.sohu.com/a/165512564_556622) (accessed on 18 August 2019).
43. Patterson, T.C. Google earth as a (not just) geography education tool. *J. Geogr.* **2007**, *106*, 145–152. [[CrossRef](#)]
44. Potere, D. Horizontal positional accuracy of google earth's high-resolution imagery archive. *Sensors* **2008**, *8*, 7973–7981. [[CrossRef](#)] [[PubMed](#)]
45. Kaimaris, D.; Georgoula, O.; Patias, P.; Stylianidis, E. Comparative analysis on the archaeological content of imagery from Google Earth. *J. Cult. Herit.* **2011**, *12*, 263–269. [[CrossRef](#)]
46. Kruse, F.A.; Baugh, W.M.; Perry, S.L. Validation of digitalglobe worldview-3 earth imaging satellite shortwave infrared bands for mineral mapping. *J. Appl. Remote Sens.* **2015**, *9*, 096044. [[CrossRef](#)]
47. Hu, Y.; Gao, S.; Janowicz, K.; Yu, B.; Li, W.; Prasad, S. Extracting and understanding urban areas of interest using geotagged photos. *Comput. Environ. Urban Syst.* **2015**, *54*, 240–254. [[CrossRef](#)]
48. Vermote, E.; Justice, C.; Claverie, M.; Franch, B. Preliminary analysis of the performance of the Landsat 8/OLI land surface reflectance product. *Remote Sens. Environ.* **2016**, *185*, 46–56. [[CrossRef](#)]
49. Rozenstein, O.; Qin, Z.; Derimian, Y.; Karnieli, A. Derivation of land surface temperature for Landsat-8 TIRS using a split window algorithm. *Sensors* **2014**, *14*, 5768–5780. [[CrossRef](#)]
50. Leech, N.L.; Onwuegbuzie, A.J. Beyond constant comparison qualitative data analysis: Using nvivo. *Sch. Psychol. Q.* **2011**, *26*, 70. [[CrossRef](#)]
51. Bergin, M. Nvivo 8 and consistency in data analysis: Reflecting on the use of a qualitative data analysis program. *Nurse Res.* **2011**, *18*, 6–12. [[CrossRef](#)] [[PubMed](#)]
52. Hilal, A.H.; Alabri, S.S. Using NVivo for data analysis in qualitative research. *Int. Interdiscip. J. Educ.* **2013**, *2*, 181–186.
53. Yan, H.; Zhenbin, Z.; Yujie, C.; Chen, Z. The visual representation of tourism destinations in the internet era: Multiple constructions and circulations. *Tourism Tribune* **2015**, *30*, 91–101.
54. TIGERcolor. Colorimpact 4—Color Scheme Designer. Available online: <http://www.tigercolor.com/> (accessed on 7 May 2019).
55. Ma, B.; Hauer, R.J.; Xu, C. Effects of design proportion and distribution of color in urban and suburban green space planning to visual aesthetics quality. *Forests* **2020**, *11*, 278. [[CrossRef](#)]

56. Gao, C.; Cheng, L. Tourism-driven rural spatial restructuring in the metropolitan fringe: An empirical observation. *Land Use Policy* **2020**, *95*, 104609. [[CrossRef](#)]
57. Ou, S.C.; Chen, Y.; Liou, K.N.; Cosh, M.; Brutsaert, W. Satellite remote sensing of land surface temperatures: Application of the atmospheric correction method and split-window technique to data of arm-sgp site. *Int. J. Remote Sens.* **2002**, *23*, 5177–5192. [[CrossRef](#)]
58. Jimenez-Munoz, J.C.; Cristobal, J.; Sobrino, J.A.; Soria, G.; Ninyerola, M.; Pons, X.; Pons, X. Revision of the single-channel algorithm for land surface temperature retrieval from Landsat thermal-infrared data. *IEEE Trans. Geosci. Remote Sens.* **2008**, *47*, 339–349. [[CrossRef](#)]
59. Wan, Z.; Dozier, J. A generalized split-window algorithm for retrieving land-surface temperature from space. *IEEE Trans. Geosci. Remote Sens.* **1996**, *34*, 892–905.
60. Gao, C.; Liu, K.; Cheng, D.; Liu, B. Feature-oriented urban color plan of small towns: Taking a case of Ningshan County, Shaanxi Province. *Urban Stud.* **2016**, *23*, 1–5.
61. Li, M.; Xu, J.; Zhang, X. Spatial-sensitivity analysis for urban color planning: Study of Luoyang City, China. *J. Urban Plan. Dev.* **2017**, *143*, 05016014. [[CrossRef](#)]
62. Wu, C. *The Variation and Inheriting of Architectural Environment Color in Tianjin City*; Tianjin University: Tianjin, China, 2011.
63. Bao, X.; Qiu, H. Foreign experience on urban colour construction and the enlightenment of Shanghai. *Shanghai Urban Plan. Rev.* **2018**, 115–118. [[CrossRef](#)]
64. Birren, F. *Color Psychology and Color Therapy: A Factual Study of the Influence of Color on Human Life*; Pickle Partners Publishing: Auckland, New Zealand, 2016.
65. Ye, H.; Wang, Y.; Qian, F. A preliminary conception of thermalscape. *Chin. Landsc. Archit.* **2019**, *35*, 72–76.
66. Tong, G.; Lin, J.; Chen, H.; Gu, Z.; Tang, P.; Zhang, J. Characteristic change of urban heat island in Changzhou City based on multi-temporal remote sensing data. *Res. Soil Water Conserv.* **2017**, *24*, 207–212.
67. Yahia, M.W.; Johansson, E. Landscape interventions in improving thermal comfort in the hot dry city of damascus, syria—The example of residential spaces with detached buildings. *Landsc. Urban Plan.* **2014**, *125*, 1–16. [[CrossRef](#)]
68. Saksa, K.A.; Ilvento, T.W.; Barton, S.S. Interpretation of sustainable landscapes affects student perception of sustainable landscape features. *Horttechnology* **2012**, *22*, 402–409. [[CrossRef](#)]
69. Barton, S.S.; Pineo, R.S.; Carter, L. Implementing sustainable practices on campus through student independent study. *Horttechnology* **2010**, *20*, 495–498. [[CrossRef](#)]
70. Ou, C.; Yao, X.; Chen, J. Discussion on campus landscape construction of local colleges under the background of ecological city—As an example of campus landscape construction of local colleges in northwest of Anhui. *Chin. Agric. Ence Bull.* **2009**, *25*, 240–243.
71. Yang, X.; Li, B. The rolls on vegetation of the campus of Qiqihar University. *J. Ence Teach. Coll. Univ.* **2006**, *26*, 74–109.
72. Li, X.; An, X.; Pan, H. Species and landscape application of color-leafed plants in Beijing. *Chin. Landsc. Archit.* **2010**, *26*, 62–68.
73. Wu, W.; Liu, H. Color landscape planning in city environment. *J. Chongqing Jianzhu Univ.* **2006**, *28*, 33–35.
74. Gao, C.; Cheng, D.; Liu, K. Study on color landscape area from the perspective of the fifth facade. *J. Cent. China Norm. Univ. (Nat. Sci)* **2016**, *50*, 770–776.
75. White, S.S. Sustainable campuses and campus planning. *Int. J. Sustain. High. Educ.* **2013**, *4*, 344–356. [[CrossRef](#)]
76. Clauson, C.; Mcknight, J. Welcome to campus: Planning for diversity, inclusion, and equity. *Plan. High. Educ.* **2018**, *47*, 39.
77. Gedzelman, S.D.; Austin, S.; Cermak, R.; Stefano, N.; Patridge, S.; Quesenberry, S.; Robisnosn, D.A. Mesoscale aspects of the urban heat island around New York City. *Theor. Appl. Climatol.* **2003**, *75*, 29–42. [[CrossRef](#)]
78. Yin, Q. University campus and university spirit shaping—Based on Norberg-Schulz’s genius loci. *J. Nanjing Univ. Sci. Technol. (Soc. Sci. Ed.)* **2018**, *31*, 74–77.
79. Sun, J.; Xie, Y. From the presence of power to the presence of aesthetics: The shift of place spirit from the perspective of tourism experience: A case of Mao mausoleum of emperor Wu of Han dynasty. *Hum. Geogr.* **2017**, *32*, 129–136.
80. Ya, L.; Zhang, Y.Y.; Ma, L.D.; Cao, B.J.; Gu, X.P.; Ma, H.Y. A SWOT analysis of the campus tourism development in Shenyang Agricultural University. *J. Shenyang Agric. Univ. (Soc. Sci. Ed.)* **2017**, *19*, 340–345.
81. Ding, H.; Jin, Y.; Yuan, X.; Yang, H. Campus characteristic landscape design based on university tourism. *Art Sci. Technol.* **2020**, *33*, 99–105.



82. Zhang, H.; Meng, X. The inspiration of the landscape construction in the University of Cincinnati. *Chin. Landsc. Archit.* **2012**, *28*, 33–36.
83. Yao, Y.; Li, S. Research about the relationship between landscape architecture and public health. *Garden* **2018**, 80–83. [[CrossRef](#)]
84. Bray, P.M. Rethinking urban parks [to rally discussion]. *Places* **2004**, *16*, 78–79.
85. Li, P.; Liu, Y.; Zhang, Q. Research on college campus landscape strategy based on affordance theory—Taking the Xinzhuang Campus of Nanjing Forestry University as an example. *Garden* **2019**, 74–79. [[CrossRef](#)]

**Publisher’s Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).