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Retraction

Retracted: Optimization Design of Mountain and Water Landscape of Traditional Mountain Village Based on New Robot Visual Technology

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Manipulated or compromised peer review

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] X. Jia, R. Liu, and Z. Qiao, "Optimization Design of Mountain and Water Landscape of Traditional Mountain Village Based on New Robot Visual Technology," *Journal of Robotics*, vol. 2023, Article ID 4155090, 10 pages, 2023.

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Research Article

Optimization Design of Mountain and Water Landscape of Traditional Mountain Village Based on New Robot Visual Technology

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The reasonable application of the random sampling consistent algorithm can be used to eliminate the theoretically possible error points and then complete the initial aiming pairing. The interior points obtained after this algorithm are used to estimate the relative adjacent poses of the new robot in the operation of the least squares method, so as to make certain improvements to the ICP (iterative closest point) algorithm, making it useful for accurate aiming pairing. Finally, by using the optimization method of G20, the posture of the new mobile robot relative to the adjacent position is optimized to a certain extent. In order to reasonably plan and design the landscape of mountain villages, this paper proposes the corresponding solution by analyzing the multidimensional value and landscape design data of traditional mountain villages, which not only needs to adapt to modern economic development but also needs to live in harmony with the natural ecological environment. Taking a village as a case for analysis, the village houses, roads, services, greening, ecology, and other aspects were reconstructed, and then, the detailed landscape design of the multimedia multidimensional resource village was analyzed and implemented.

1. Introduction

China has a large proportion of the rural population. In order to realize the goal of building a well-off society in an all-round way, we must first deal with various problems in rural areas. In recent years, many municipal governments have responded to the call of the state and carried out reforms and transformations in the countryside [1, 2]. Of course, some cities have urbanized rural areas without reasonable measures, just demolishing old buildings and building new ones, forming high-rise buildings everywhere, large-scale renovations, and losing the original rural scene of rural characteristics. There are pressures of cultural scenic spots in many regions, and the rural scene with rural characteristics in the past has gradually disappeared. From another point of view, because only the pursuit of rural economic construction, due to insufficient utilization of rural resources, this directly leads to the destruction of the natural ecological environment in rural areas to a certain extent. For example, the area of land used for farming in rural areas is decreasing, and the area of natural spots is gradually being artificially reduced. Excessive use of chemical fertilizers, hormones, pesticides, and herbicides has also caused great damage to the entire ecological environment in rural areas. In addition, the rapid processing of more rural enterprises and companies has also brought serious and irreversible pollution and damage to the entire ecosystem of the rural environment [3, 4].

In the process of economic development in recent years, the simultaneous opening of the new mobile robot's positioning system and the reconstruction and mapping of the robot map have become a hot spot in the field of robotics research, which is worthy of attention [5, 6]. In the past, many scientists in China and other countries have done a lot of constructive research on the visual technology of new mobile robots but found that a lot of valuable shape and geometry information was lost in the research of visual technology instead. The village landscape corresponding to the traditional village as a type of cultural heritage has gradually formed a complex of material landscape and immaterial landscape with the continuous development of the village involved, which is of profound cultural heritage and historical value. China is a country with a variety of terrain such as plains, islands, and mountains. The village landscape is affected by a number of factors such as regional culture, topography, and social economy of the villages. Thus, the external form and internal value of various villages can be different. The geographical landscape in which the village is located has prominent features. Compared with other forms of traditional villages, the regional traditional villages with their topographic features have more evident characteristics of mountainous landscape. Thus, the evaluation of their value in multiple dimensions is a multiangle and multiobjective assessment process. At present, domestic researchers and scholars mainly focus on ecological adaptability, village space study, and evaluation of traditional mountain villages, concentrating in the analysis of traditional village value assessment and landscape formation studies. Traditional villages have specific regional characteristics and historical and cultural heritage. Many mountain traditional villages with remarkable regional culture and unique architectural appearance have been gradually formed in the course of continuous development. Hence, there are relatively a large number of samples available for research, which can be used to study the value assessment and spatial optimization of the landscape formed by mountain traditional villages and lay a sound foundation for further development [7, 8]. The value of traditional villages is not only demonstrated in the fact that traditional production patterns are still present in mountainous traditional villages but also reflected in the case where some villagers still retain their traditional agricultural activities. The traditional folk culture is highly preserved as a regional activity, and there are relatively many types of intangible cultural heritage. In the process of continuous development and enhancement of traditional cultural values, it has endowed the development of tourism connection projects with better tourism prospects and can also contribute to the continuous improvement of tourism reception facilities.

In view of some of the problems mentioned above, as for how to solve these problems more targeted, this paper proposes a method for the visual technology level of new mobile robots in more traditional mountain village landscapes. Facing the problems of large matching error and low efficiency in point cloud aiming, a correlation aiming strategy for layered point cloud is proposed. In addition, the relevant matching algorithm for volume fusion is introduced again. The method puts forward in this paper can be used to optimize the position and posture of the new robot, and the practicality of the method can also be effectively verified by the results of the experimental analysis.

2. The Overall Plan and Suggestions on Improving the Design of Mountain Landscapes

2.1. Visual Technology under the New Robot. In this paper, the design of the new robot is optimized by applying the vision technology to the landscape of mountain traditional villages, and the system architecture constructed at the level of vision technology is shown in Figure 1 as the following. In accordance with the diagram of the system framework depicted in Figure 1, it can be observed that the system designed in this paper can be divided into the following three parts: feature point detection, image correlation matching, and Kinect expression and point cloud generation so as to achieve the purpose of position and pose optimization through conducting the operation of alignment [9].

In this paper, the attribute features of feature points are detected and analyzed in combination of three algorithms (Harris, SIFT, and SURF). At the same time, for the purpose of conducting comprehensive consideration and analysis to ensure that better algorithm robustness and stability can be obtained in the detection results of the system, the traditional algorithm is applied in this paper while at the same time, the SURF algorithm is effectively combined for its rotational attribute characteristics and dimensional changes. The feature values of this algorithm are acquired mainly by using the method of eigenpoint extraction. The eigenpoints are mainly divided into the detection eigenpoints and the attribute eigenpoints, focusing on the function direction selection and the description process of their feature values. The feature values are determined based on the presence of consistency as a way to demonstrate that it can be calculated by using the Euclidean distance calculation method. If the corresponding set of feature points in the image is denoted by letter x and letter y in turn, the expression based on the Euclidean distance operation can be obtained as follows:

$$D(X,Y) = \|X - Y\| = \sqrt{\sum_{i=1}^{d} (X_i - Y_i)^w}. \quad (1)$$

It can be known from the above expression that the similarity of the corresponding distance feature points will be very high, provided that the value of the distance calculated based on Euclidean theorem becomes smaller. During the matching process of all data in this paper, if the maximum adjacency vector related matching algorithm is applied, that is, the attributes of the neighboring feature points and the attribute feature points are calculated for their respective Euclidean distances, $D1$ is used to denote the Euclidean distance corresponding to the nearest feature point, and $D2$ is used to denote the Euclidean distance of

the second closest neighboring node, and if $D_1 \le \alpha D_2$ (in which α is set to the closest ratio $\alpha = 0.60$), then the two attribute feature points can be regarded as the same and matched correspondingly; otherwise, this point can be ignored.

For the purpose of acquiring the color and depth of the image obtained with the Kinect algorithm, its internal parameters can be optimized to avoid the drift that may occur between the depth camera and the infrared image. Subsequently, the Kinect algorithm is improved. In this paper, the method proposed in the literature [10] is optimized and improved, and the Kinect algorithm is put forward and applied in the process of acquiring the depth values of the image, which allows to obtain the values for the 3D coordinates corresponding to the image. In this way, the corresponding 3D color point cloud data can be generated. By using the function (x_d, x_y) to denote the pixel points of the random image being set, the coordinate points of the image are projected to the 3D spatial points $P(x, y, z)$, and the depth image pixel points can be obtained accordingly. The corresponding coordinates are expressed in the equation as follows:

$$\begin{aligned} x &= \frac{(x_d - c_{xd}) \times depth(x_d, y_d)}{f_{xd}}, \\ y &= \frac{(x_d - c_{yd}) \times depth(x_d, y_d)}{f_{yd}}, \\ z &= depth(x_d, y_d). \end{aligned} \tag{2}$$

It can be known from the above expressions that f_{xd} and f_{yd} can be calculated in combination with the calibration value of coordinates by using c_{xd} and c_{xd} to stand for the depth values at the pixel point of the image, and two symbols denote the coordinates of the image center point, f_{xd} and f_{xd}, to stand for the focal length of the camera.

The new robot visual recognition variable is represented by a ternary array $(r_1, r_2, r_3) r_1 < r_2 < r_3$ composed of zeroed numbers, and its subordinate function is

$$\mu(x) = \begin{cases} \dfrac{x - r_1}{r_2 - r_1}, \text{if } r_1 \le x \le r_2 \\ \dfrac{x - r_3}{r_2 - r_3}, \text{if } r_2 \le x \le r_3. \\ 0, \text{others} \end{cases} \tag{3}$$

The new robot visual recognition is set to $\alpha = (a_1, a_2, a_3)$, $\beta = (b_1, b_2, b_3)$, according to the expansion principle of the addition and power of the new robot visual recognition number

$$\begin{aligned} \mu_{\overline{\alpha}+\overline{\beta}}(z) &= \sup\left\{\min\left\{\mu_{\overline{\alpha}}(x), \mu_{\overline{\beta}}(y)\right\} z = x + y\right\} \\ &= \begin{cases} \dfrac{z - (a_1 + b_1)}{(a_2 + b_2) - (a_1 + b_1)}, a_1 + b_1 \le z \le a_2 + b_2 \\ \dfrac{z - (a_3 + b_3)}{(a_2 + b_2) - (a_3 + b_3)}, a_2 + b_2 \le z \le a_3 + b_3 \\ 0, \text{others} \end{cases}. \end{aligned} \tag{4}$$

That is, the new robot visual recognition, and then

$$\overline{\alpha} + \overline{\beta} = (a_1 + b_1, a_2 + b_2, a_3 + b_3). \tag{5}$$

From $\mu_{\lambda\overline{\alpha}}(z) = \sup\{\mu_{\overline{\alpha}}(x) | z = \lambda x\}$
It can be obtained

$$\lambda\overline{\alpha} = \begin{cases} (\lambda a_1, \lambda a_2, \lambda a_3), \lambda \ge 0 \\ (\lambda a_4, \lambda a_3, \lambda a_2), \lambda < 0 \end{cases}. \tag{6}$$

Let $\overline{\alpha}_i = (a_{i1}, a_{i2}, a_{i3})$, $i = 1, 2, \cdots, m$ is a new type of robot visual recognition, and the resulting non-negative linear combination of $\overline{\alpha}_i$ and the new type of robot visual recognition planning

$$\sum_{i=1}^{m} \lambda_i \overline{\alpha}_i, \lambda_i \ge 0. \tag{7}$$

It is still a type of new robot visual recognition, and

$$\sum_{i=1}^{m} \lambda_i \overline{\alpha}_i = \left(\sum_{i=1}^{m} \lambda_i a_{i1}, \sum_{i=1}^{m} \lambda_i a_{i3} \right). \tag{8}$$

At present, the recognition of new robots in terms of vision technology is still realized through random programming, and the constraints also include data of random parameters, which may provide a certain probability that the constraints are related. In the context of visual recognition of novel robots, the understanding of chance is defined as a limited possible behavior. New robots have planning constraints on recognition technology. The new robot with strong randomness provides a powerful tool for solving the optimization problem of random parameters and new type robot identification parameters at the level of visual recognition technology and the control scheme of new robot visual recognition technology.

In this paper, the new robot performs a certain rough matching of attribute feature points at the visual technology level; therefore, the common areas of the two sets of point sets can be roughly overlapped, so that the corresponding matching can be done for the next step more accurately. Subject to constraints in the process of planning, the new

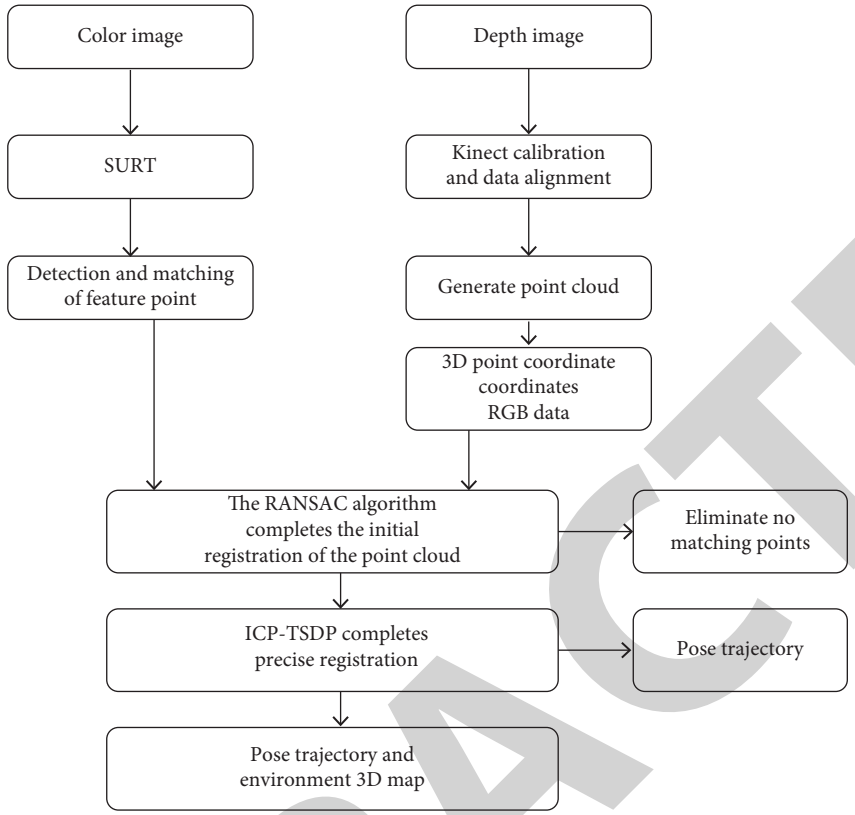

Figure 1: Framework diagram of the vision technology system for mobile robot.

robot vision technology is of relatively flexible randomness. The control method based on the new robot vision technology can be used to obtain the random parameters effectively and provide a valid solution path for the optimization of robot parameters.

The new robot vision control technology applied in this paper has a certain roughness in the process of processing attribute feature points, which can ensure that a state of overlap will be achieved in the corresponding common region between the two sets of point sets as a means to obtain more accurate preconditions. The method adopted in this paper can be used to set the error values that may occur in the range and match them to the internal and external points under the conditions of the experiments set in this paper. Among them, the value for the threshold can be set to 3.00, and if the error obtained is greater than d, then it indicates that this point (outlier point) should be discarded. During the course of the experiments, the least squares approximation is also invoked to obtain the variation of the camera position in real time [11]. By using the algorithm proposed in this paper, all interior points are calculated. Subsequently, the nearest neighboring positions and poses of the new robot can be assessed effectively based on the least squares method. The equation for the transformation relationship between the positions P_j at time i and time j is $P_j = P_i T_i^j$, in which the camera is denoted by T_i^j, which stands for the value of the rigid transformation matrix.

$$T_i^j = \begin{bmatrix} R_{3\times3} & t_{3\times1} \\ 0 & 1 \end{bmatrix}. \tag{9}$$

In accordance with the above expression, the rotation matrix can be denoted by the symbol $R_{3\times3}$; $t_{3\times1}$ stands for the translation translation matrix. With regard to the simultaneous localization of the new mobile robot and the mapping construction of the map, the translation matrix of all the time data to the start time can be acquired according to the following equation:

$$T_0^k = T_0^1 * T_1^2 \cdots T_{k-1}^k. \tag{10}$$

Through the features demonstrated in this paper, the most straightforward point-to-cut derivation method is adopted. In addition, a more comprehensive computational numerical method is used in the experimental part of the paper; at the same time, the application of the Euclidean algorithm can reduce the generated noise to a great extent, which has exerted the effect of sound elimination and improved the success rate of the initial values.

In the traditional calculation method, there is always a defect: if the point cloud of two frames is integrated, redundant points can be generated at the fused point cloud. Hence, a calculation method that allows the volume space to be fused as a background before being converted is adopted in this paper to address this situation. The purpose of this calculation method is to present the cubic data in three

dimensions by creating a way that can convert the cubes to spatial pixels with the specific resolution values. The specific conduct of each point to the cut plane is documented in detail in a timely manner. The point cloud fusion map is shown in Figure 2 as the following. The positive and negative values stand for the distance to meet the tangent, and a point of the surface is denoted by a zero point. The values are processed in sequence, and the new values are generated and calculated according to the equations (8) and (9). The different values generated for each frame are collected and fused, and finally, the point generated by the surface can represent the zero pixel of the spatial volume.

2.2. The Overall Plan for the Design of the Relatively Traditional Village Landscape in the Mountains

2.2.1. Taking the Basic Functions of Mountain Village Landscapes as the Basis for Zoning Planning. Regarding the various functions of the mountain village landscape, the whole village can be divided into five areas, namely the leisure area for reception, the Yinhe Street commercial area for business, the central area for rural community services, and the residential tourism area, and a resort area for residential tourism and an ecosphere for green ecological protection.

Leisure area for reception: the location is around the reservoir to the east of the mountain village and could be programmed to function as a water recreation area and a reception for premium leaders. All the leisure and entertainment methods mainly include a water playground on the sandy shoal, a small pier on the lakeside that can be used for boating, a fishing area along the lake, and facilities such as manpower, wind power, and water vehicles on the south bank of the lake. On both sides of the lake, there are also room for nourishing the heart, gate tower, Goddess Pavilion, and various buildings to provide a higher level of reception. There is also a garden on the south bank of the lake, where all kinds of flowers are grown for viewing, and a small folk playground can also be used for some small entertainment.

Yinhe Street commercial area for business: a stone pedestrian street with residential shops on both sides is set along the riverside of the village, and three small distribution places are opened along the road for festivals and local activities, reflecting some local ethnic characteristics. The custom of going to the market exists locally, transforming the front of the road house into a commercial store, and the residents live in the residential building at the back. The buildings on both sides of the road in the entire building complex are different in height and are scattered in a well-arranged manner. Entering and exiting is also a kind of fun and has different characteristics.

Central area for rural community service: this central area is mainly in the north of the room where the village committee lives. Six groups of dwellings and scattered earthen houses were demolished and later formed a large courtyard unique to the village. This location becomes the new dedicated activity center for the rural community according to the function. The main activities of the whole community include projects that provide life services, such as village committees, community activities, and centers specially designed to receive tourists or visitors, marriage agencies, maternal and child health centers, science and technology, culture and education, youth activity centers, and senior citizens activity center.

Resort areas for residential tourism: the function of this location is as a residence service for tourists or visitors.

Ecosphere for the protection of green ecology: the mountains surrounding the picturesque village come together. They are an untouchable environmental backdrop and a source of water for the mountain village. This paper strengthens the greening and decoration of this environment by planning to make it have a certain ornamental value. Nanliangzi and Dongshantou are dedicated areas for mountaineering activities that tourists can expect, climb, and arrive at. In addition, the hills surrounding this location are planted with seasonal fruit trees and greenhouse plants, which visitors can also experience.

2.2.2. Some Plans for the Current Building of the Residence. The structure of the current residential buildings can basically maintain the spatial structure left over from the original village in the piedmont. On the basis of harmony with the surrounding natural environment, some old residential buildings have been correspondingly protected and better transformed in this spatial structure. Most of the remaining walls of the residential buildings have been modified to some extent, and some have been demolished and rebuilt. The reconstructed overall architectural shape highlights the unique characteristics of the ancient residential style of Laiwu Mountain Village. According to its function, some floors are changed to two-story structure to accommodate more tourists and provide them with accommodation services. There is also a small part of the platform built according to its unique terrain, in the form of three layers. The houses inhabited by the villagers are largely the same as before, only a part of which has been renovated, and the residential standards of the new buildings have been improved. Based on the needs of tourism activities, the corresponding folk daily necessities are configured in the regional environment, which fundamentally reflects the characteristics of folk customs. The south wall of the residential house should be properly lowered in order to promote the ventilation of the house and provide a better view. Figure 3 shows the reconstructed three-story residential structure.

2.2.3. Planning and Protection of Green Environment. In order to optimize the existing plants and water systems more effectively, fully excavate the context structure in the existing natural landscape in terms of planning and protection, an overall greening system is designed that combines points, lines, and planes to form a unique green structure. This greening structure is implemented around the three main bodies of "greening circle of ecological environment—greening lines on roads—greening points in residents' courtyards." The ecological environment green circle protects the original ecological tree species and wild flowers

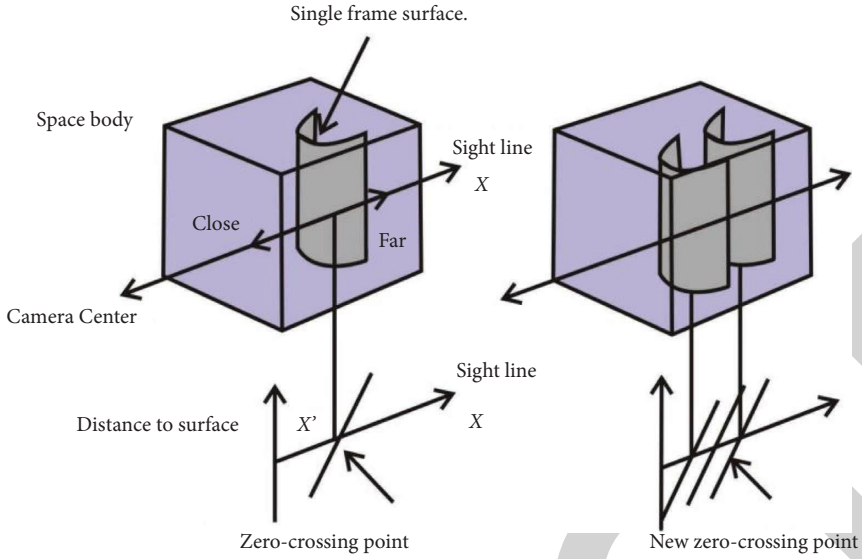

Figure 2: Point cloud fusion results based on volume space.

in the mountains around the village to a certain extent and further improves the greening degree on this basis, thus forming a combination of fruit trees, economic trees, and characteristic ornamental trees. In addition to planting trees in the garden, the greening of the residential area also focuses on vertical greening in terms of earth walls and walls. At the same time, according to the topographic structure and spatial layout of the mountain, some suitable trees are appropriately planted on both sides of the road and on both sides of the river. The ecological green circle outside the village and the small green space in the village form a green corridor that intersects with each other. The dotted lines are connected to each other to maintain the continuity of the green area in space. After planning the above points, it is necessary to prohibit the passage of large vehicles in the village, and private cars are scattered in and around the village, so as to prevent noise and air pollution and maintain a very good ecological environment. Figure 4 is a view of the village landscape after green planning for reference.

2.3. Suggestions on Improving the Design of Mountain Landscapes

2.3.1. Effectively Improve the Unique Design System of Mountain Landscape. Continue to strengthen publicity efforts to raise awareness of village names and awareness of environmental protection: the most critical point in the design of mountain landscapes is to raise the awareness of local people to consciously protect the local mountains. First, take protection as the theme of propaganda, and formulate a very eye-catching and easy-to-understand propaganda slogan, thus emphasizing the importance of red landscape in design and its meaning to people themselves. Second, it is necessary to choose a publicity method that is closer to the masses, so as to strengthen the publicity and protection of the red landscape, and to publicize the value and significance of protecting the mountains from the

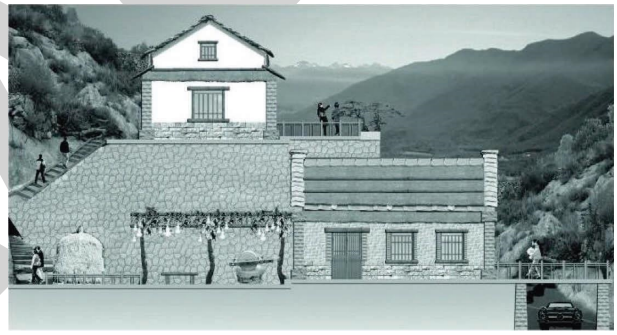

Figure 3: Side elevation view of the fake three-story residential house after renovation.

spiritual, economic, and social levels. Finally, it is also possible to publicize the relevant responsibilities of protecting mountains from the legal level, thereby creating a general atmosphere of protection for mountains.

The main landscape design and completion of the mountain area: many of the existing mountain ranges have been damaged to a great extent due to the development of the age and different degrees of natural disasters. If this paper wants to develop the mountain reasonably and effectively and try to convert the benefits brought by multimedia into economic benefits, it is necessary to realize the relevant maintenance of multimedia benefits. For example, the multimedia prototype is repaired, so as to improve the unique value system of multimedia. On the other hand, local authorities must also pay attention to the unique social and economic value of mountainous areas, continuously increase investment in the design of major mountain landscapes, and even set up special protection funds to repair some damaged areas, to protect the existing valuable cultural heritage and ensure sustainable development. In addition, local governments must also change their thinking on protection, decentralize the development rights of some

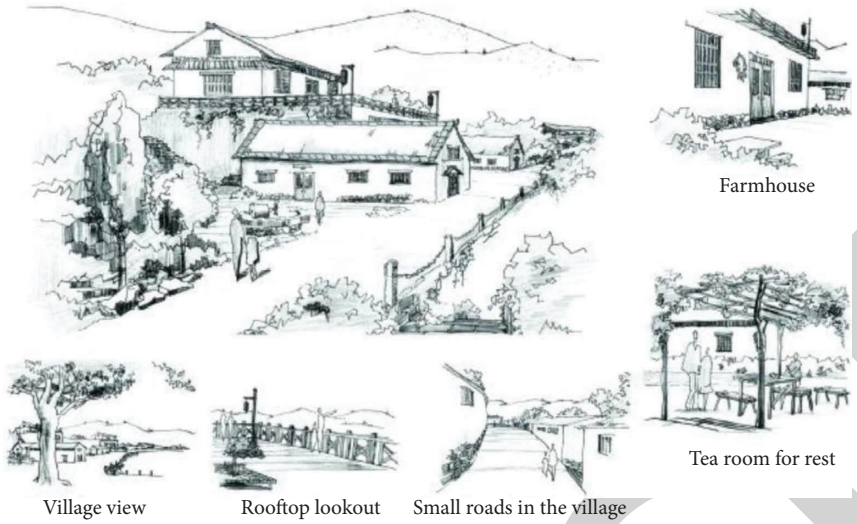

Figure 4: The local landscape rendering of the village.

picturesque places, and attract foreign investment. Only by attracting social capital can we protect and develop local mountainous areas under the guise of more social forces [12, 13].

Arouse the public's environmental awareness and attach importance to environmental protection in the development process: during the development of the whole mountain area, local authorities should also pay attention to protecting the ecological environment through multimedia, and the environment around multimedia should also pay more attention. It is strictly forbidden to arbitrarily destroy the green ecological environment around the local mountains. During the entire development process, the prototype and characteristics should be maintained as much as possible, and the excessive commercial development of the mountainous area should be fundamentally avoided. At the same time, strengthen the strong maintenance of local public security and social order, prevent or eliminate the bad influence brought by some bad cultures, and protect the original ecology unique to the place and the simple characteristics of the villagers as much as possible.

2.3.2. Effective Analysis of Mountain Landscape Design Process Data. Effectively develop local mountain products based on the benefits brought by the advantages of multimedia: in addition to the effective development of the mountainous area, the area also enriches the multimedia of various tourism types such as ecological environment, natural customs, folk culture, and red culture. When developing the mountainous environment, it is also necessary to strengthen the mutual integration and penetration with the local ecological environment, natural customs, folk culture, red culture, and other types of tourism multimedia and constantly integrate the advantages of multimedia, so as to promote cooperation and development between scenic spots and scenic spots, between scenic spots and travel agencies, and between travel agencies and travel agencies, so as to jointly develop relevant tourist routes and launch mountain products that meet local characteristics. In the actual development process, the emphasis is placed on the advantages of the combination of red and black and the combination of red and green, that is, to make reasonable use of the unique national charm of the black-clothed Zhuang people and then launch a very distinctive tourist route of "travelling through the old revolutionary bases and looking for the black-clothed people." Using multimedia functions, such as ecological environment, green and low carbon, and adventure exploration, is to promote the popularization of mountain characteristics and jointly launch tourist routes such as "red city adventure journey" with local environmental characteristics.

Unique identification of product characteristics to create a characteristic brand exclusive to the place of origin: the development of the brand can also serve as an important foundation for the survival and development of tourism products. If you want to expand the influence and attraction brought by the municipal mountain area, you must constantly highlight its own characteristics, so as to build local brands. First, you can combine the characteristics related to the mountain and at the same time use the "wind and thunder, the red flag between the two rivers" to determine the most important image position of the mountain, that is, focus on the region and emphasize the status of "left and right rivers and mountains." Second, through the use of the development of multiple tourism multimedia such as ecological environment, folk characteristics, natural customs, red culture, combined with the mountains, a secondary image positioning featuring "Blessed Land in the Red City, with thousands of postures" is constructed to emphasize the unique beneficial result brought about by red travel. Third, this article will utilize the influence of the uprising on Comrade Deng Xiaoping to establish a third-level image positioning with the slogan "The second birth city of Deng Xiaoping old area" and use the great Deng Xiaoping to enhance the brand value of the mountain itself.

Segment the current market and continuously expand the source of customers: taking into account the unique characteristics of tourism multimedia and the current composition of various types of tourists, the tourism market can be roughly divided into mountainous areas and can be divided into more detailed divisions to expand the supply of tourism resources. From the perspective of geographical distribution, tourists from mountainous areas are mainly tourists from Guangxi, which can gradually develop Guizhou, Hunan, Yunnan, Pearl River Delta, Vietnam, and other regions—the source of tourists from these surrounding cities, and finally supplement other domestic cities and quickly enter the national market. From the perspective of tourism purposes, this paper can also develop a series of political groups, such as patriotism education, integrity education, and socialist core values research, and these aspects of learning can be used as a source of tourists, or through cooperation with other tourism multimedia to attract tourists. According to the type of tourists, in the current relatively stable tourism resource groups such as government institutions, higher education institutions, primary and secondary schools, military forces, enterprises, this paper can increase the development of individual tour groups targeting tourism. At the same time, the city will benefit from the opening of the "mountain special train," and the organization of the tourism fleet advertising activities and the development of tourism festivals continue to expand the relevant channels for publicity and continue to strengthen the publicity of tourism, so as to further develop more tourist sources market [14, 15].

2.3.3. Continuously Optimize the Industrial Structure of the Current Tourism Area, So as to Comprehensively Improve the Development Quality of the Mountains. Widespread promotion of mountain culture: in today's society, the main operation status of each mountain tourist attraction is still independent operation, which is not conducive to the promotion of the entire mountain landscape tourism. In response to this, this paper proposes that it is necessary to break the situation that each region is independent and divide the existing mountainous areas in the region according to different themes to form connecting routes to become a tourist area. It is even more necessary to radiate and popularize the entire mountainous area in the form of a cone, fundamentally improve the utilization rate of the entire mountainous area, and strive to convert the existing advantages of multimedia into economic advantages, and do our best to save the investment cost required in tourism construction. To a certain degree of adjustment to the industrial chain structure of this tourist mountain area, in order to improve the development quality of the whole mountain area, internal and external cooperation is strengthen in various places, so as to present a win-win situation for several parties: What the city needs to do now is to seize all possible development opportunities in the entire mountainous area of Guangxi, so as to strengthen the effective cooperation between various regions and Nanning, Chongzuo, Longzhou, Hechuan, and by complementing the respective multimedia advantages and disadvantages of the regions, sharing their respective network marketing platforms, we can jointly carry out effective and reasonable publicity to the mountainous areas, so as to build a very high-quality image and create a brand with certain competitiveness and to expand the market scope of existing land in mountainous areas. On the other hand, this article will take advantage of a high-quality geographical location such as the junction of Yunnan, Guizhou, and Guangxi, get rid of the restrictions brought by geographical location, search for more opportunities for cooperation with surrounding provinces, and establish a cooperative relationship between partners in the mountains, and jointly promote the further development of the mountains.

3. Analysis of Examples and Results

The traditional mountain village landscape is selected, and the network electronic map is used as the technical support. In addition, a total of 200 cases of modern mountain traditional village landscapes that won the professional award constitute a statistical sample. Taking the formation mechanism of landscape ornamental as the classification benchmark: among the 100 landscape samples, there are 17 active mountain traditional village landscapes which occupy the 17% of the total. The mountain traditional village landscapes loaded for the first time accounted for 6% of the total. There were 78 cases of active and passive secondary load ornamental landscape, accounting for 78% of the total.

The pattern prototype of the spatial interface of multimedia multidimensional control comes from the pyramid, the main visual information is concentrated on the eye line, and the visual focus presents a stable triangular composition. 200 examples of samples are counted based on the visual-dominant spatial interface classification as shown in Figure 5. Among them, the mountain traditional village landscape with multimedia multidimensional dominant spatial interface accounts for 85%, accounting for an absolute proportion. In this way, having a clear ornamental subject is often a means of landscape design for mountain villages.

The entire landscape is effectively controlled by a very clear and definite axis, which not only functions as a visual channel but is also the most important tourist route. Because the existing tourist routes and decks within the line of sight have certain restrictions on the viewing of tourists to a certain extent, the main body of its decoration is mostly beyond the ordinary buildings, and it is also the most prominent sign and visual focus in the entire landscape environment. This paper can use the corridor characteristics of the line of sight and the visual-dominant space interface caused by the symbolic decorative subject, so as to show a relatively stable structure similar to the pyramid, which will have a strong impact on the visual and psychological levels, and it conveys the beauty of nature at the landscape level. The design method in this way is usually applied to watch the rural landscapes visited by celebrities, the rural landscapes where important historical events have happened, etc. These landscapes often take a single view as the viewing center.

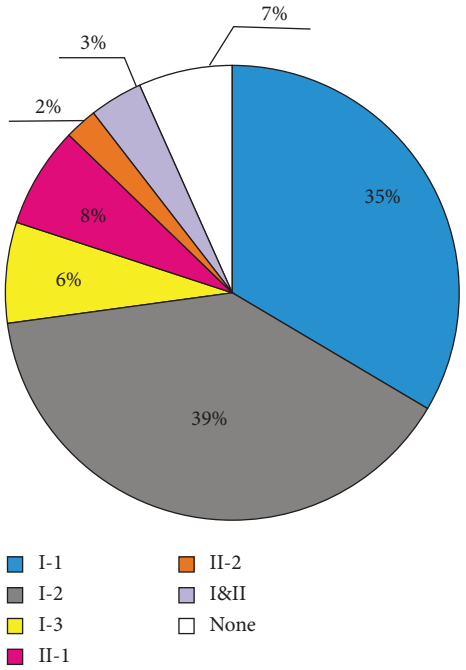

Figure 5: Proportion of various visual-dominant spatial interfaces in the statistical sample.

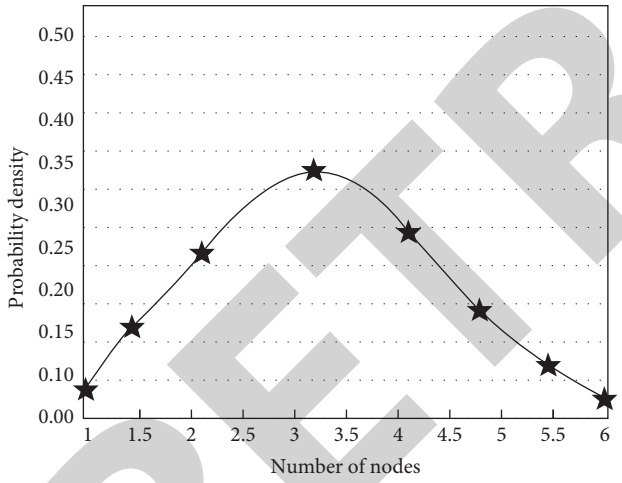

Figure 6: Probability density distribution of the number of nodes.

In the statistical sample, there are 55 examples of both landscape corridors and multimedia multidimensional leading space interfaces. Twenty-six examples were randomly selected to form a secondary statistical sample. Extract the data of each visual factor, and make statistics from the following aspects through numerical value. The proportional relationship between the number of landscape nodes and each axis is calculated, and the ornamental subject is located at the position of the axis. Quantitative relationship analysis of axes and plan planes is shown in the following section (Figures 6–8).

From this, the following conclusions are drawn: (1) the number of landscape nodes presents a normal distribution, and the distribution characteristics show that there are more in the middle and less on both sides. The average number of

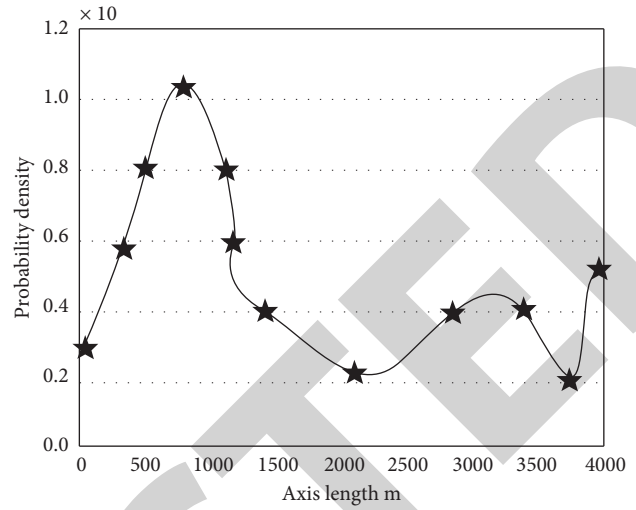

Figure 7: Probability density distribution diagram of axis length.

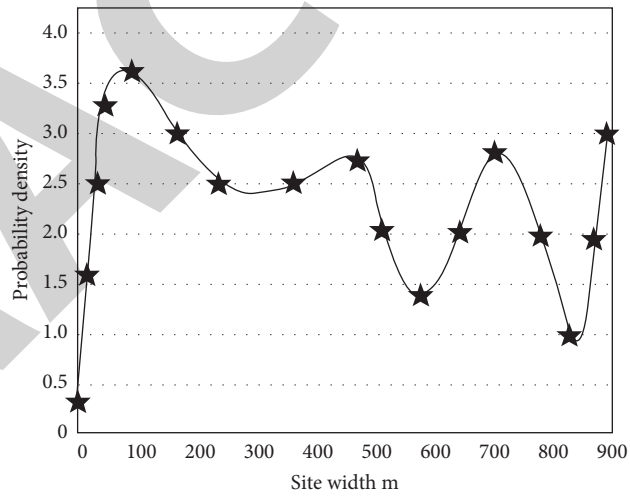

Figure 8: Probability density distribution map of site width.

nodes is about 3; (2) the distribution characteristics of the two peaks in the axial length, one is close to 700 meters, the other is close to 3300 meters, the first peak distribution is more; (3) the width of the site is centrally controlled within the range of about 400 m. This is especially evident in the dataset at a range of 200 meters, the same as the city square, which is almost identical in scale.

4. Conclusion

Aiming at the problems existing in the point cloud aiming process of the new mobile robot in the visual recognition technology, such as large matching errors and low recognition efficiency, this paper proposes a more traditional optimization method for mountain village landscapes. Aiming at some problems in the process of splicing and combining point clouds, a matching algorithm based on the fusion of volume and space is proposed. In the generation of 3D map, a multiframe fusion method based on volume space is proposed to reduce the redundant problem of points. After several experiments for effective verification, the final results

show the effectiveness of the method to varying degrees. After transforming the more traditional mountain village landscape, classification measures can be taken for mountain villages, and these measures should be centered on local farmers to continuously stimulate the rapid economic development, thereby increasing the disposable income of local farmers, so as to achieve sustainability development. Compared with the traditional mountain village landscape, the shape of the landscape design is determined by the calculation method. Such behavior provides favorable data for the current development of traditional mountain village landscapes in China as a basis for implementation and establishes a unique mountain landscape focusing on rural tourism, so that the landscape can have its own development characteristics.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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