The Practical Consideration of Ecological Landscape Design of Beautiful Countryside–The Practice and Consideration of Landscape Design of Countryside in Changan District, Xi’an

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Abstract. The construction of beautiful countryside is the national strategy of People’s Republic of China, which involves the economic development, cultural revitalization and the happiness index of the villagers of the vast rural areas. The ultimate target of the construction of beautiful countryside is the construction of benign development of modern countryside lifestyle. The author introduces the paper with practical activity, and with the inheritance of cultural tradition of countryside and the design application using rural material as the tool. Through the comb of the latest voluntary service practice and relevant considerations on it, the study attempts to pursue the possibility and reasonability of ecological landscape design of beautiful countryside in China. In terms of the inheritance of cultural tradition of countryside, there are two forms. In the first place, it embodies in the protection of traditional countryside cultural landscape; and in the second place, it embodies in the continuation of the idea of harmonious relationship between human beings and the nature in the daily life of villagers. With the rural materials that are familiar to the local villagers, the landscape construction of the countryside can better exhibit the history of their own village, the memory of great humanity and honour. Only in this way, can the landscape design be welcome.

1. Dongliubao beautiful countryside voluntary service practice
In July 2019, the author, as a team-lead teacher, contacted with the Dongliubu village—a village at the foot of Qinling Mountains in Changan District of Xi’an, and set a practice base there for sculpture major, grade 2016 of XAUT (Xi’an University of Technology). Since it is the most underdeveloped village in the local area, though cement road was paved by the local government there, the villagers did not have fund to further the landscape design holistically. After the full communication with all the parties, agreement was reached. The local government would supply student volunteers with the basic painting materials for the landscape design of the village.

1.1 Site survey and design discussion
On July 1st, 2019, the author went to the Dongliu village and surveyed the village carefully with the village head and other villagers, then the detailed content and the requirement of the construction were agreed. As for the possible landscape design of the village, all parties discussed and considered the ideas carefully. The author planned to transform the rubbish dump at the entry of the village into a small landscape square, and suggested the mural painting on both sides of the main road. The author kept detailed records on the cultural tradition and stories told by the elder villagers, then consulted
relevant materials and summarized the text. On July 2nd, and July 3rd, a full discussion was held back to university among the author and the students, and preparation was made for the design of the small square at the entry of the village and the style of the mural on both side of the main road. During the same two days, the villagers cleared up the rubbish dump and cleaned the substrate of the walls on both side of the main road. On July 4th, the author visited Dongliu village again with the students, studied in the field to experience the actual environment, and get actual access to the available material that is suitable for the landscape renovation project. In the afternoon, in the meeting room of Dongliu village, the author presided over a seminar and discussed the detailed implementation plan with the students and representatives from the village. Finally, the agreement was reached, and the details were specified as follows: 1. Design and paint 22 murals on the walls on both sides of the main road of the village, to depict the cultural tradition, local custom and special local products in the composition of the painting with the theme of beautiful countryside and farming work Figure 2, Figure 1; 2. Transform the rubbish dump at the entry of the village into a small landscape square, based on the notion of Qinling ecological protection and inheritance of Chineses farming-reading culture.

Figure 1. Murals—Summer Harvest, painted by the students.

Figure 2. All the murals were painted successfully.

1.2 The design and construction of the small square at the southern entry of the village
The construction of landscape square at the entry of the village was conducted with the dismantled bricks and tiles from the old houses, stone millstones and rollers, old and used farm tools and furniture, as well as the rocks collected from the Qinling Mountains. During the construction, villagers cooperated very well with the designers, for instance, the village head donated a wooden pavilion, villagers managed to find crane, forklift and excavator to contribute to the landscape renovation. The designers painted the four treasures of Qinling—panda, crested ibis, takin and golden monkey on rocks according to their particular shape and texture, which was agreed as a creative idea by the villagers Figure 3. Since there was no suitable rock for the painting of crested ibis, after consideration, the author decided to paint it on the black glazed water vat. On July 11th, the author, as well as some students, designed and built the parapet wall around the landscape square with used bricks and tiles. The author suggested that the wall behind the square should also be painted, so as to create a complete visual effect for the southern entry of the village. With the consent of villagers, the wall was painted. In the afternoon, during the brickwork of the parapet around the small landscape square, opinions were divided between the villagers and the students, for the students preferred the idealized parapet pattern, while the villagers, out of the practical perspective, preferred the traditional, safe and durable pattern. After the author’s coordination, finally, the villagers’ choice was adopted Figure 4.

During the training and practice on site, students should focus on the reality and feelings and take the specific need of the local population into consideration, in which safety and durability should come first.
On July 12th, the mural painting on the small square was designed and created. Since the village had no fund for the plastering and screeding of the walls, murals had to be painted directly on the brick walls with an uneven underlying visual effect. After discussion, paintings would include blue mountains representing Qinling Mountains, and big green curves representing rivers and vegetations. The design of the wall was concise and bright. With the accumulation and dispersion relationship formed by the pavilion and rocks on the square, and the vegetations to be planted, the desired effect of the square would be agreeable Figure 5, Figure 6.

1.3 Summary of the professional design practice
The aim of social practice course is to make students realize the difference between social needs and professional study. During this event, students presented professional spirit and accepted the suggestions and opinions of the villagers, yet there existed some problems. For instance, some students hold the idea that villagers have no artistic taste and they are generally of low educational level. In the communication, some students are not patient enough, so that they are more likely to take it for granted that they are more competent than the local villagers when settling concrete problems. However, students should learn to understand the first-party’ s appeal in the business project, consider the problem in other’ s shoes and then figure out the solution accordingly.
In terms of the professional design, the murals do not need to be complicated in practice. The value of the social practice lies in the sound communication with the first-party. Under specific situation, students should learn to use the most suitable painting language. In terms of the square and landscape, students should act according to circumstances, complete the design and production with better effect quickly and economically. It is necessary to make students understand that good design and generous budget have no necessary connection, and that good design is originated from the diligence and whole-hearted investment in the work. A good design needs to fit the local environment, it grows out of environment. What the designer needs to do is enough patience and the concentration of discovery of the characteristics and advantages in the countryside landscape design. In the entry landscape design of the beautiful countryside, there exist following problems: the entry landscape is oversized, the rural elements are misused, the pavement is over-impermeable, etc. However, present studies mainly focus on the rural landscape design, entry landscape design of the beautiful countryside is less involved. In terms of the entry landscape design, functions should be introduced in the first place, in which the design theme of the village, characteristics of the village should be presented. In the meanwhile, sense of belonging should be given to the villagers, tourists should be attracted. As for material and style selection, elements of the regional culture, elements of natural environment and elements of sustainable development should also be strongly emphasized [1].

2. Summary of the author’s subsequent participation of the design and construction of beautiful countryside

In view of the sound social response of the aforementioned beautiful countryside volunteer practice, in the following months, the author received several invitations to design and construct rural landscape for Shangwang village, Xin village and Xin’er village nearby, which include the renovation of landscape at the village entry, the murals on the side of the road, vegetation and design of cultural landscape, etc.

The new countryside that the author came into contact with has experienced the removal, coalition and resettlement for the reason of ecological protection, so they are no longer the countryside in the traditional sense. In the new countryside, roads are comparatively so narrow, that functional separation of pedestrians and vehicle is missing. In the meanwhile, the space between the road and the enclosure of houses is so cramped that the green area has decreased sharply. The roads and squares in the countryside are all simply paved by cement, which has an adverse effect on the heat release and rainwater infiltration. The new countryside is not in the natural layout any more, but is presented as artificial planned lineal blocks of houses Figure 7.

Figure 7. Plane graph of the layout of Dongliu village (lineal blocks pattern).
However, the new countryside is still surrounded by farmland. Luxuriant trees and abundant crops around the countryside presented the beautiful pastoral landscape. In the modern countryside, people’s life fluctuates between the changed and the unchanged, while the villagers need updated lifestyle, changing way of agricultural production and changed leisure life in slack farming season. The author has viewed many design and renovation construction of countryside, which lack coherence and consistency in ideas and styles and finally cause huge waste of resources. Therefore, the entry of each village, cultural and fitness leisure square, roadside landscape, vegetation and nightscape lighting should be planned holistically, so as to maximize synergy and create a full space-visual impression.

3. Thinking in the construction of beautiful countryside

In the practice work, villagers showed great enthusiasm in the landscape construction in their hometown. The beautiful and tidy living environment has strong appeal to the local inhabitants. The major problem that the author has faced is how the ecological target of the construction is reached. As for this target, there are two aspects of contents. On the one hand, villagers have the requirement of spiritual pursuit and cultural identity. As for the specific country, the presentation and inheritance of cultural tradition, history memory, customs and habits are becoming more and more important, so that each individual village requires its own cultural landscape icon. On the other hand, owing to the limitation of natural environment and economic condition, it requires that landscape material should be eco-friendly, which preserves the characteristics of rural life. In other words, materials should be found and used in situ, and cost should be saved as much as possible. Besides, the content and form of the eco-friendly construction of the beautiful countryside, lie in the traditional cultural inheritance of Guanzhong region in Shaanxi province and the modern aesthetics reconstruction of the local rural building material.

Take the Deer Spring landscape renovation in Xin’er village as an example, it springs from the Qinling Mountains, bubbling out the rocks all the year around, which satisfies local people’s need for the drinking water. In order to protect the spring, villagers used to build a cottage above it, which also serves as the control room of water and electricity in the village. The cottage is a square, flat-roofed building, through the wall of which the spring pours out through a water pipe. Yet, all the villagers are not content with the architectural appearance of building. After repeated on-site investigation, combined with local traditional style of house and well, the author made five drawings Figure 8, Figure 9. Then, on the basis of better appearance, practical and cost-saving feature, the author, after several rounds of discussion with the villagers, decided to add façade level on top of the original cottage and set up a pergola supported with columns outside the external wall of the original building. With the help of vegetation, different functional areas are divided. Below the pergola, park benches are installed, and murals of relevant theme are painted on the original walls of the building. In order to create an artistic conception of “over crystal stones flows water clear”, cobblestones are paved on the ground, over which the spring pours out of the pipeline through the wall. Since the original space is so cramped, and power poles and light poles around the cottage are immovable, with a tight budget, the author have an actual feeling of “dancing with shackles on” in the whole construction process as a designer. Fortunately, after repeated communication, the content and form of the design are recognized by the villagers, for it is an ecological design and construction Figure 10.
The construction of beautiful countryside in China lacks relevant experience, according to the author’s own experience, there exist the following problems: 1. Although the existing excellent template can be copied and reproduced, the problem lies in that excellent landscape design should rely on the specific natural and cultural environment, as if it is the fruit grown out of the earth. Therefore, graft and transplant of the existing template without the consideration of concrete environment and customs will harm the emotional well-being of the specified villagers in a particular circumstance. 2. Without detailed exploration of the specific environment, designers are likely to take things for granted—idealizing the blueprint, regurgitating existing landscape design, and the result is usually counterproductive with double effort and wasteful use of resources and materials. 3. Over-designed landscape and construction are existed. The target of beautiful countryside construction is to build up harmonious human-nature relationship, to glamorize the rural life, however, over-designed landscape renovation only gives rise to the decline of aesthetic appeal. The rural landscape design mainly selects landscape space that is closely related to the people’s life in the range of rural landscape as the target, in which three space types are involved: life, work and ecology. Accordingly, the rural landscape design can be mainly classified into three categories: natural landscape, rural settlement landscape and
production landscape [2]. In rural landscape planning, the principle should be to protect the ecological environment and respect the ecological environment. Through scientific planning and advanced construction technology, the natural ecological landscape and human society should be organically integrated together to truly form a beautiful rural environment with ecological harmony and harmonious coexistence between man and nature[3].

The thinking of the author: China is a large agricultural country with more than 690,000 administrative villages. Therefore, doing a good job in rural landscape design is of great significance to the construction of beautiful villages and the integration of urban and rural areas[4]. The natural environment provides necessary light, water, temperature and food for human life, which is the basis of human growth and reproduction [5]. In the practice of the design and construction of beautiful countryside, designers should respect the rural culture and material, work patiently and explore environment-friendly design, so as to ensure the ecological landscape construction. Moderate design and processing are the basic principle of the beautiful countryside production, for the ingenious design excels others. It is of great realistic significance to integrate the natural environmental landscape into the new countryside design, such as the integration of perspective of Qinling Mountains and impressive skyline, the middle ground of idyllic scenes of trees and cottages and the close range of flowers and plants. In the meanwhile, it is of equal importance to learn the scenery-borrowing principle in landscaping of traditional Chinese gardens.

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