

# Plant · Green · Living Environment

## - Urban Construction and Establishment of Green Space in Kunming -

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### ABSTRACT

Green and plants, as it symbol the life and depute the nature, always give human an easy comfort psychologically. The paper is a brief analysis to the idea frame of urban construction and reform of Kunming through our practice about ten years. On which three main principles should be carefully considered. One is that the green-space composed of plant system is of the important infrastructure of a modern city as it can not be instead of by any other factor in the ecological system of the city. The other is that in the course of planning and construction the local feature as well as its culture tradition in history should be paid more attention. In order to create a distinguish character of itself the third may be more important that to coordinate each key elements of it such as green, water, light, building, road, etc., to get a harmonious sphere of human and nature.

A modern city should be a green city in which nature and man co-exist harmoniously.

*Key Words : City, Colorful green and housing environments, Garden-style system, To establish a green systems of plants and flowers for Kunming, Harmonious sphere of human and nature*

### I. RELATIONS OF CITY SPACE AND GREEN ENVIRONMENT

At the beginning of human society people are all living within the forest. As the necessary conditions of food, clothing and dwelling all get from the forest, so that the human race spontaneously coexist with great nature for a harmonious development. Followed advance of society and the progressing of produce-style people broadened their activity-space down off from trees. Further steps, the primary agriculture developing the villages even the rural market are rising and scattering to the valleys and plains to which the

people more and more concentrated.

Such a kind self-reliant life-style of small-scale peasant farming decided the habitats environment of people to be that the green hills around the village and the colorful trees siege the houses. Then, human's assemble places is of still scattered among the nature to be a harmonious sphere.

Follow the industry revolution rising the towns and the cities gradually formed to satisfy the needs of intensive production. From then on the city had been becoming the active center of social-economy and tech-culture within some area of the great nature. Unfortunately, such a development made the people more and more to drift apart. Especially,

because of the extortion more than the treasure to the nature, some unharmonious spheres take placed. To the twenty century, followed speed developing of the social-economy and science-technology the people massively gushed into the city and the urbanized cities emerged, the surround environment had being intensively pounded and even wrecked to a distant to destroy the nature ecology systems and much species of living beings disappeared.

Such a serious realistic made a strong challenge to the human themselves.

Housing environments are the results of the nature reformed by human's activities. Cities are the concentrated reflection during the course of establishing the culture life both in material and mental. When we examine our environmental change we can find that whether to the action of mentality or of physiology the people are always longing for the return of nature. As the green plants stand for life and symbols the nature which can provided with an easy sphere to the life. Green-space is of inevitably a net to connect the human with nature, to combine both as a coordinate body. So that it is the key factor related a city can or can not be developed continuously.

## **II. KUNMING, A CITY OF SCENERY DURING THE LATE MING TO EARLY QING DYNASTY**

Kunmung, the capital of Yunnan province, located at the E.L 102 42' and N.L. 25 02' of the central part of Yunnan plateau. It is a famous historic city longing two thousand years. According to the archaeological study, about thirty thousand years ago the human had activated around Dianchi lake basin which covered an area about two thousand kilometers. Located to the north terminal of the basin with a slowly slope the city unfolded providing with the wonderful scenery from north to

south. It is that the city with three verdant hills of Wuhua, Luofen and Zupian rising from it's heart and surrounded by continuous hills to far suburbs. As the outstanding poet Sun Ranwong had described in his famous poem three hundred years ago to be that backing the Serpentine hills to the north and facing the blue water of boundless Dianchi lake to the south; and far off the east scating the hills of Golden horse; toward west located the more beautiful hills of green phoenix. Moreover, even within the heart district numerous small lakes and rivers are also scattered as stars in the sky. Up-to-now, the old name of eight rivers and two lakes are still remained. During the history not long ago, neighboring to the waters the city proper depend on the scenery hills with the gardens and tiny farmlands mingle as a nature picture. Together with the intermittent green farms and red-yellow hill-cliffs to outskirts a unique landscape of downtown mingle with countryside naturally be formed. From the old names of much streets and lanes such as Persimmon flower lane, Plum garden lane, Willow tree lane, Jujube lane, Cattail farm, Phoenix flower garden, and the others we can image how a wonderful picture Kunming had been! Much historic documents such as the <Memo of Kunming county> had also recorded the old scenery as the Old poet Sun Ranwong described as above mentioned.

## **III. TO ESTABLISH A GREEN SYSTEMS OF PLANTS AND FLOWERS FOR KUNMING**

An environment that not only the scenery scattered within downtown but also the downtown dissolved in scenery.

Not long ago Kunming still called to be the "Turtle Down" as it's streets, except numerous

Buddhism temple gardens scattered as oasis, layout like the back of an old tortoise. After liberation to 1950s-70s, the garden-style's layout broke out. To 1980s it only occupied eight kilometers with the population about 267 million, a backwardness consumer-city. Beginning from late 1980s and early 1990s, the city developed at high speed to be a modern capital city with the people about one million. Based on the existed layout the creative ideas of planning practiced. Used thinking of dispersing in main frame and concentrating in details the enlarged city developed to be radiant layout. Not only all the historic scenery had to be fully used the more important is that the new ideas in planning and construction also created. Coordinated the relations of spots, lines, and plans various new scenery dispersed into downtown or suburbs by means of reform or construction to establish a new green systems of flowers and plants in macrograph for the city to form an excellent environment on space-frame. This is, the tiny gardens scattered into downtown and the oasis around the residence of suburb, and the broad farmland connect both of them. Moreover, planning the neighboring natural lake of Dianchi to be a biggest tourism area in the province.

Followed two famous places of Stone-forest and Dianchi as whole belongs to Kunming in authority in late 1980s, the people gradually recognized the importance of afforests and flowers. Which is not only necessary for the urban environment, for the life of people, but the key factor in ecology between people and nature, the key factor in economic developing of the city. So that, some new idea should be necessary in planning practice.

## 1. Consider Ecological System

Afforests and flowers play an important role in balance of ecology between nature and people. Much attention should be paid at the beginning of plan on the problems of green plants not only for the downtown itself but also on all the connected elements. Such as road networks, surrounding hills and waters, housing and it's outspace, etc. should also be considered as a whole. Otherwise, it's ecological system may be broken. Because of this our practice, based on the principle of rational ecological system, we aimed at promoting the environment qualities.

## 2. Organize Scenery System

Pay attention on two main aspects of macrostructure and focal spots.

1) Macrostructure system enclosed three main contents of hills and waters, farmland and villages, and the downtown itself. Each of them should be coordinated as a whole body. It is always neglected in past. Now, we dissolve much tiny rural scenery local features into downtown, at once, Kunming became a unique city deferent to any other cities of the country.

2) Focal system of spots enclosed Weeds-sea (north parts of Dianchi), Golden-temple and Black-dragon park, and A line of three waters as well as hill within township.

Weeds-sea area, as it near to the downtown, can be used to construct to be a broad green leisure place of sightseeing for domestic and abroad people. It had been the historic site, followed cities developing some artificial scenery can be added into the natural and culture scenery of history made it more

picturesque.

A line of three waters and a hill, composed of Panlong river, Dagan river, green lake, and Yuantong hill park. It can be called a volume of flowing history of the city, the witness of the development of the city, and the "mother rivers" of Kunming. Along the river, i.e., traditional axis of the city, constructing continuous green belts with tiny plaza and the parks to organize artificial landscapes.

By same method and used more historic relics, starting from Yuantong hill passing through Wuhua hill and then along Zhengyi avenue to Golden horse and green cock archways at last to the pagodas of East and West temples to organize another belt of sightseeing. Such an idea and practice the traditional culture spheres and the modern beauty all can be reflected. Within districts of Gold temple and Black Dragon, a large-scale scenery can be organized by historic relics, rare plants, famous ancient trees, plum garden and others to reflect the plant resources and culture spheres.

### 3. Green System of Downtown

Combine the necessary elements of spots, lines and plane figures to make a rational arrange.

Central district: Now, Kunming had being developed to be two large areas of old and new districts. As about the old district in which the population concentrated, it had been mentioned above in detail. To the north and west are of the new districts, it can be planed by modern conceptions full use the large green ground cross with the flowers and ornamental plants.

Outskirts of the city: By means of medium and small parks using the tiny belts of ornamental plants to connect each of them to form numerous green pictures.

Scenic spots and historic sites: Thanks to the

kindness of great Nature, almost all of them located on the hill-slope as well as neighbor to the waters. Moreover, all of them have a well preservation. Beside the some spots mentioned above, in order to couple with them and to complete a completion system some significant parks had also been constructed to the east, southeast, and west directions to enrich the green arrange of city fringes. Such as Tanhuasi park, Baishahe park, Baohai park and the Outskirts park.

In details any benefit space of the city should be fully used. For the beauty of the city it should think again and again in the course of planning. Based on the serious analysis of each objective condition to make the deferent characters for each spot. Such as the inner side of the avenues had been used as flower corridor or pictured by ornamental plants, along the rivers to complete green corridors crossed with tiny garden of waterside. In doing so, a high qualities of housing environment of broad masses can be formed.

In practice in order to deferent character dissolve into deferent scenery to form deferent interesting subject, all the elements whether in nature or in culture should have a comprehensive consideration, each scenery spot should have a definite aim. By such a principle, we created the picturesque spots of "Searching plum blossom along dragon spring", "Camellia full bloom in sweet song of phoenix", "Cherry lake on Yuantong hill", "Playing gulls over green lake", and "Snow magnolia enclosed in Taihua temple".

All mentioned above one can find that in the course of planing of the Kunimng's green space system some significant principle had been followed as that used ecology theory as guide and combined the city's developing frame. Arranged rationally variety green ground. From the macroscopic viewpoint considered all the green elements such as

farmland and neighbor hill forests and then used them to dissolve into the general frame. In doing so not only the ecological benefits can be gained but a well ecological environment with heavy local characters can also be created. At last to form a big picture of "the city among the landscape as well as the scenery dissolve within the city".

#### **IV. RETHINKING OF THE CONSTRUCTION OF KUNMING'S GREEN SPACE**

In recent ten years, especially promoted by 99 World Fair of Horticulture the construction of Kunming's afforest had changed greatly whether in culture or in nature aspects. The quality of ecological environment had also a great leap forward. More leisure places give the ordinary people for their morning exercise or playing in weekend. All the people both native or nonnative have a common sense in Kunming the sky is more blue, the air is more fresh.

Examine the course of green-construction the Author hold that:

1. Followed developing and speed up of human society the nature environment must be impacted even to be broken. This is a heavy problem the human can not be avoided. In order to solve it the only and the economic as well as the practical means are of afforest and gardening.

2. The gardening and afforest are the necessary elements which can not be lacked in the construction of a city. And to complete of them the ecology theory should be followed in the whole course. The local character and existing situation should be carefully considered in the planning of developing. Only that, a well environment with

colorful features can be created for the people.

3. A well ecological system affect not only to the city itself but also to the neighbor areas. So that, in construction of them all the small towns, villas, forests and waters should be considered as a whole body.

#### **V. GREEN CITY -A PARADISE CO-EXIST WITH NATURE HARMONIOUSLY**

In 1992, at the United Nations Environment and Development Conference an important principle had been established. It is that "the basic standpoint of sustain development" should be followed by all countries. Based on well developing of ecological system to balance the resources, population and environment in economic developing. In any city, ecological environment is a complex system center to the people. The lost of nature conditions means the losing of living condition. In order to guard the living condition the main even the only means is of the construction of green-space. Which not only can promote the quality of environment, but also can serve as the solid basis for economic activities. Any other factors can not instead of it. A modern city should be such a well environment in which the people co-exist with Nature harmoniously.

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