

Ecological Strategy of Creating the Harmonious Environmental Rich Villages in China

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Abstract: This article expatiates the theoretic principle of building rich ecological village environment comprehensively. At the same time it also analyses the ecological technologies which are suitable for the countryside construction in the theoretic strategy. It clearly identifies the relationship among different levels of inner and outer space of ecological buildings and explores the methodology and strategy of the designing.

Keywords: ecological countryside building, harmonious environment, ecological strategy

In the 21 century, it has become a century topic to architects that how to improve people's living environment, keep the sustainable development of construct environment through the construction of residential environment under the situation of the balance relationship's daily deprivation of ecological environment with the great increase of world population, incredible industrialization development. The establishment of, rich and harmony have become the main strain of current society development. The improvement of living condition and residential environment of the peasants, which are the majority of our country's population, is the key issue of the creating a successful rich society. At the moment, the living condition and residential environment of our countryside people are still on a comparison low level. By using the local natural resource and geography environment, adopting the techniques of ecological and sustainable development, under the precondition of not or slightly increase the investment, it is a significant task that the construction workers need to face in quite a long period to improve the residential environment in the countryside.

1. THE DESIGN OF ECOLOGICAL COUNTRYSIDE RESIDENTIAL ENVIRONMENT

The connotation of ecological construction environment, resumptively speaking, is to use ecological theory and methods, by making people, buildings, nature and society development harmoniously as aims, using and alteration the nature under a certain limit, seeking the ecological construction environment, which is the most suitable to human being's survive and development, treat the construction environment as a whole system which is organic, with configuration and function. The real ecological construction should be the one which is harmless through the whole process of design, construct, use and abandon.

The construction of ecological residential environment is a very important part of modern sustainable development. By integrative usage of modern architecture, ecology and other scientific technology, through various kinds of objects issues of the inner and outsider space of construction designing, enable objects and resources to circulate and converse regularly within the construction ecological system so that it can become the process which is highly unified with production, living and ecology as well as combined and commensal with natural ecology. Eventually it can reach the goals as follow:

1.1 Health and comfort are the foundation, which means through improve the comfortable level and quality of construction, in order to meliorate the living ecological environment, improve living quality.

1.2 Highly effety clean is the key, which means by using the most little resource, having most little pollution to gain the highest social economic benefit and environmental benefit.

1.3 Harmony and elegancy are the inspirit ambition to reach, which means ecological construction uses the most little resources but has the various and abundance elegancy, so it is a completion of harmony and elegancy.

Human being is the key of ecological activity. Based on this key, keep the design ideology of 'based on people's need', create a ecological residential environment which is reasonable composition, economical usage of land, convenient living condition and grace ecological environment.

2. COMPOSE ECOLOGICAL STRATEGY OF ECOLOGICAL COUNTRYSIDE RESIDENTIAL ENVIRONMENT

Countryside harmonious environment construction is a integrative kinds process which is carried

towards countryside agriculture production, living and ecological environment. It means to architects that while consider how to build a ecological 'home', the priority is the attention of the whole harmony of ecological environment create a residential environment with life spirit. According to ecological ideology, build a human being residential harmonious residents based on the local living resource condition, fully combine ecological construction techniques and nature, maximally exert peoples creative and productive ability so that the residents' health and environmental quality could be protected maximally in order to create a highly effectively and harmonious residential environment. Composing a harmonious ecological countryside residents is based on the background of nature environment so that how to deal with the effect of geography, climate, biology, resources, culture and all those issues to the construction of the village and residents while planning the location is the priority within the countryside ecological construction design, as well as a interaction transition between nature environment and man made environment through the construction process. It also is a process of adjusting the management and ecological construction relationship within the mountain, farm, water, road, trench, reservoir and villages

2.1 The planning design strategy of rich ecological countryside resident harmonious environment :

2.1.1 Should consider ecological village's population, the side of land, range of ecological planning area, geographical climate condition in a whole range.

2.1.2 Should correspond the relationship within the ecological village's land development, ecological community, agriculture productive system and culture scientific condition in a whole range.

2.1.3 Should pay attention to relationship between the road setting of the ecological village and other areas, reasonably leading the spread, transport and active of the ecology, sight, object, energy.

2.1.4 Should based on the development aim as the main strain, set overall arrangement as the foundation, carry on a integrative disposition and management regarding to the village's nature water system, water supply system and ecological green system.

2.1.5 Should enforce the process of carrying on effective protect regarding the nature ecological areas which have abundant character and important valuation.

2.2 The construction designing strategy of rich ecological countryside resident's harmonious environment :

2.2.1 Based on the construction local area, advocate the local design methods which use local materials and traditional techniques.

2.2.2 Increase density of construction, use more colony arrangement. Try not to occupy the unused farm and nature space.

2.2.3 Under the livable and reasonable comfortable condition, try to reduce the construction space.

2.2.4 Regarding to the local climate condition, consider to use renewable resources, nature ventilation, nature cooling and solar energy heating, and so on.

Solar energy technique: solar energy fresh air heating system, solar energy hot water system, solar energy low temperature floor radiation heating technique, solar energy ventilation cooling technique and so on.

Nature ventilation: design period should start consider create the condition, which is propitious to hot pressure and wind pressure ventilation, in order to realized the goal of using nature air cooling system in the summer.

2.2.5 Green system:

2.2.5.1 The most important issue of the ecological environment functions, is whether green land could supply photosynthesis in order to fresh the air, adjust the humidity and temperature of the air, keep the soil. The photosynthesis of the trees is ten times of the grass, and the water demanding level of the grass also much higher than the trees, so that it is very important to consider the ecological effect of the trees in the areas which are lack of water.

2.2.5.2 Regarding to the supplication of leisure activity function, should be able to provide the outside activity spaces which are clean and simple, practical and elegance, complete facilities.

2.2.5.3 Regarding to the sight culture function, should provide vision sight and culture class through garden space, plant arrangement, small sculpture.

ecimal numbering are requested for each heading.

2.2.6 Rain collection and water circulation usage.

2.2.6.1 Using the store of the rain collection to water the garden, even make it subsistence usage after necessary cleanse.

2.2.6.2 Using the subsistence water, which is deposited and filtrated, as grey water.

2.2.6.3 Through transaction of designing, use water as the main element of construction's cooling outsider structure.

2.2.7 Construction overall arrangement

Overall arrangement the collocation arrangement within the construction, try to guide the cool and humid south wind in summer and also avoid the chilly north wind in winter.

Direction in order to have the houses suitable to the climate, should choose the appropriate direction towards the sun and wind.

2.2.8 Construction material

Outer wall structure should try to use local recyclable construction materials in order to use the local materials to reach the heat preservation aim and also can use the materials recycle.

2.2.9 Firedamp technique

Firedamp is a high grade cleansing resource, which the organic objects changed into after fermentation. It can be used directly as living fuel, or translate into heat energy, power energy or electricity energy in further step, to be used in production. The remains of the firedamp after fermentation, is one kind of high grade organic fertilizer and breed aquatics assistant nourishment. It can bring remarkable integrative benefit if it can be combined with agriculture main industry by making an integrative usage of it. To develop the countryside firedamp, build ecological homeland, can provide high quality cleansing resource to the peasants, at the same time, it also can increase their income through extend the zoological chain. This is a best way of realizing the transition of fuel, fertilizer and fodder, which has the special effect of reclaiming the agriculture castoff energy and object.

2.3 The garden design strategy of rich ecological countryside residential harmonious environment

The realization of the design mentality of 'Based on people's need' in the garden space environment is the final aim of ecological construction design. The design fully embodies human nature's need. Through

the surround of living room, dinning room, open areas and front and back garden, it creates an inside and outside osmotic complex space. The division and agility compartment of the living room and dinning room provide the big space which is needed by people's activities. The agriculture space design of the front and back garden, fully consider the peasants physical and emotional involvement in the farm work. It combines the self working creative action and the environment to show the economic value of the garden. The surrounding of the garden also builds up the security and domain feelings of the peasants.

The usage of different level design, such as open areas, firedamp pound, breed aquatics shed, and solid greed, creates the sight of the garden. At the same time, it also carries an ecological process with human's, animal's and other live rubbish through firedamp. The firedamp liquid and dregs transfer into fodder and good organic fertilizer to create a small range of garden circulation economy. It provide people a safe, comfortable and free feeling, which is the ideal mode of our countryside development.

3. THE EXPECTATION OF ECOLOGICAL COUNTRYSIDE RESIDENTIAL ENVIRONMENT

To build u a practical rich ecological residential environment, the key is based on the update of the conception. With the ecological conception, based the usage of the techniques, such as solar energy, wind energy, green materials, rain, grey water, green and firedamp, as the builders' direction, so that the architects could fully understand the local condition and needs, combined the architecture techniques with ecological conception based on the respect to economy and ecology regulation, enable to create a real harmonious rich countryside residential environment.

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