

Symbiosis & Beyond

Symbiosis means biological mutualism. Through the long term research of Archilife Research Foundation, we discovered it's the key point that human will use it to deal with the global warming and climate change in the future. The followings are connected with the concepts that I have announced before. Our foundation completely delivers the solution and suggestion for sustainable development.

Before 1970s, we think resources and energy are unlimited. We believe sustainability is certainly. The advanced western countries use the resources to develop their life style. We call it industrialization and urbanization. By means of international trade, the wave of comparative advantage, every country produces their special products and promotes them to the whole world. It makes the whole world has the same urbanized civilization. Because of the successful experience of the advanced western countries, let all the less-developed countries envied the way of western life they have been going. Under this kind of marketing, the less-developed countries import the goods from the advanced western countries. It influences their value and culture, also makes the whole world in the same model. However, the western model can't match the local climate and environment. We can't release from the deep influences under the international trade and the principle culture. It leads the constructions of the whole world to the same. The construction not only is incompatible to the local environment, but also causes a waste of resources.

According to the concrete deductive model proposed by Archilife Research Foundation, this directional industrialization and urbanization in the world are the

main reason for breaking the steady climate. Mankind of industrial civilization, can take ancient forest petrochemical industry energy after the carbonization not merely, still can cut down the forest to utilize, then to burn till it becomes garbage, this means and consumes with the present carbon in the past at the same time, in addition, no longer regard timber as the main building materials, therefore impel the carbon dioxide concentration to rise fast. According to IPCC's report, the rise and fall of CO₂ concentration will determine future global temperature as well as its impact on climate change and ecology. This poses a major threat to the future development of humanity, and also restricts further development of industrialization and urbanization, thus forcing humankind to reexamine the direction and content of civilization. As a less-developed country baptized by Western civilization, Taiwan is also aware of the severity of this problem. More importantly, situated in the cultural circles of the East, Taiwan bears a comprehensive thinking which is characteristic of the East. After examining IPCC's report, we think that it seems to have overlooked the relationship between climate change and the evolution of the Earth, thus resulting in an inference model that overstates the proportion of artificial emissions of CO₂ and underestimates the role played by natural evolution. Therefore, our foundation has conducted a detailed analysis and obtained a succinct model of climate change, which will make it easier to foresee the impact of climate change and to come up with solutions accordingly.

With CO₂ concentration increases, the return of desertification areas will be expanded, and the areas will have more frequent disasters according to the model. When the climate exceeds extreme value, the safety factor of the industrial products will be insufficient. We estimate the current safety factor is not enough. If only it becomes changeable, then disasters will come along.

Therefore, we predict the global will show climatic eruption phenomenon in the future of CO₂ concentration increasing process, then the enlargement of desert. If the desertification is getting worse, the arable land would be reduced and food

will be lacked immediately. Right now, biomass energy is popularizing and also excluding food of arable land, so it makes food supply much shorter. This tells us, if people who are threatened by desertification, their subsistence will have serious destruction.

The Earth used to remain stable with agricultural civilization from the deductive model. That's why we propose the " Symbiotic civilization ", the new one based on agriculture, to reduce human interference with Nature, let Nature regain its vitality. Then, it can slow down the climatic eruption and reduce the probability of desertification.

We proposed Symbiotic living for the sake of creating civilization. It is based on the biological sense. We have a vertical planting system beside the construction's wall. Through the dry toilet, our output will be the nutrition of the plants, and the output of plants will be our food. We hope through this high-efficient recycling system, it might help to release the burden of the environment. Also, by the evaporation of plants, it might help cool down the high temperature of building. As the recycling rate increases, human interference with Nature will be minimized. Only in this way can we fundamentally eliminate the drawbacks of urban civilization, reduce the pressure that industrialization and urbanization impose on Nature, and make sustainable development come true.

In terms of GB, it should adopt the most efficient method and build the vertical planting system around the structure to form a green wall. By applying the daylight-working model, we can promote the recycling of daily necessities with imitating agricultural civilization. In other words, the use of the Solar Energy creates a self-sufficient lifestyle.

In order to create a self-sufficient lifestyle, we have four components to form a recycling life, including the vertical planting systems, the nucleic acid meal, the cleaning and the compost. The vertical planting systems can be built beside the

construction's wall to catch the sunshine more easily and their baskets can be also run to absorb the water in the bottom. The wild edible plants and other vegetables can be grown together to reduce infection and pest. It will also form a green wall after the wild edible vegetables grow prosperously. In addition to cooling down the environment by sheltering the building from direct exposure to sunlight, this can also help to reduce the workload of air-conditioning and provide a reliable vegetable source. Together with some protein, such as fish contains more nucleic acid, this will become a perfect nucleic acid meal that can provide healthy diets. Waste and wastewater produced from everyday life will be cleaned before entering the recycling system, including the dry toilet, wastewater treatment system etc. For the reason of safety, the compost function of the dry toilet will need a 2-step compost or sterilization before mixing with the soil to produce nutrition for plants. Wastewater will also be feedback to the vertical planting system after treatment in order to form a closed symbiotic recycle. And we name the new operational technique required WILD-TECH.

We believe if we have these four components, it can make the symbiosis come true. Following the accumulation of WILD-TECH, these four components can accommodate more micro-scaled or multiple recycling systems to complete the most needed recycling structure under the concept of sustainable development. By doing so, it will be easier for us to spread the idea of symbiosis from a single building to the entire community and even a country and build recycling society in order to reduce the workload of environment and to make the developments of human-beings will not be the burden of the natural environment. While human is the center of this recycling system, human and wild edible vegetables together form the symbiotic recycle, because by using solar energy, air and water, wild edible vegetables form the environment for human survival and provide us food. Wild edible vegetables have long been existed in our environment. While they have already formed the mimicry in nature with soil, microorganisms and insects, they are resistant with one another during the course of evolution. Therefore, we need to understand the position of wild edible vegetables in nature and we can use

their mechanism of symbiosis. If we understand the mechanism of symbiosis, we can use artificial treatment to expand its survival quality and quantity to support further development. In doing so, we need to protect the nature and the environment as the foundation for sustainable use on the one hand, and to promote further development by selecting the required wild edible vegetables and species to achieve sustainability on the other hand.

In addition to daily necessities of life, however, trade is still necessary in human civilization, for it improves our living quality and enriches our living experiences. To reduce the dependence on urban markets, we turn to digitalization instead, which can enhance networking and transmit the information of symbiosis more quickly. Digital life will encourage the development of WILD-TECH on the one hand, and diversify online transactions on the other hand. In the world of Internet, online revenues are possible; Internet may thus replace the role played by traditional markets, which in turn will reshape urban civilization fundamentally, thus leading the world to the new civilization that we have been talking about. This is why we put stress on digitalization and symbiosis when testing the functions of Symbiosphere I Center. The current experiment is already in the sixth year. In addition to testing the operation of the symbiotic recycling system, this year we began to pay more attention to digitalization by conscripting a number of knowledge-oriented members who are capable of earning a living on the Internet. This effort is intended to investigate the outlooks of the new civilization, and to induce the birth of future habitable construction. We hope that our project will bear some concrete results before the annual meeting of 2011. Please wait and see.

In the face of energy crisis and climate change, it's time to make some revolutionary changes to achieve SB by combining GB and symbiosis and share part of responsibility in sustainable development. Let's do something to sustain the human future.