HONG KONG ARCHITECTURE IN PRACTICE VS PRINCIPLE OF SUSTAINABLE ARCHITECTURE

ABSTRACT

Sustainability is a hot topic to building industry, but sustainability in architecture has been differently defined in the past. In Sustainable architecture is in practice and to see if they follow the spirit of the sustainability in this way. It is essential to restate the important role of sustainable architecture to save the earth resources in the sense of social, economic opportunity and sustainability. Therefore, the most appropriate word to make a significant contibution in defining unique qualities of sustainable architecture.

MAIN RESEARCH QUESTION

Before this research, an examination of the definition of sustainable building from the different perspectives of social, economic, and environmental sustainable architecture. According to the report Sustainable Construction Innovation in Action from Cit Ivanka Limited (2004), it is written that "while information on the concept of sustainability is increasingly available in Hong Kong, there is still a wide gap between theoretical and practical application. In that sense, sustainability in practice is often very different from the ideals of sustainable development because each party has their own intention on this issue and specialising in particular aspects. Therefore, it is vital to understand sustainable architecture in practice and to see if they follow the spirit of the sustainability in this way.

SECONDARY RESEARCH QUESTION

Sustainable architecture can not be separated from environmental building assessment methods and those methods service as a guide for developing sustainable buildings. However, current assessment methods have their limitations and most of the assessment methods are used for assessing the environmental performance of buildings but not assessing the attention to Social and Economic scopes. This attitude will influence the building industry towards a single-dimensional sustainable development while sustainability in architecture needs a multi-dimensional. Unsuitable, sustainable development of this moment is much more related to the environmental protection instead of having integrated approaches on the three pillars of sustainability. In fact, all kinds of sustainable approaches should be involved and to increase the guarantee to environmental protection which will result in a balance of ecosystem management. It is vital to understand the relationship between the integrated facility or infrastructure in a community. In other word, sustainable architecture needs a multi-dimensional protection in order to avoid the building becoming too "green" and to avoid hindering the progress on environmental considerations.

To find out the architectural trends and practices of sustainable architecture.

To find out how the three pillars work in practice.

To examine if the practices of sustainable architecture are balanced.

OVERVIEW THE DEVELOPMENT OF SUSTAINABILITY

The Nuniwastik Model of Sustainable Architecture

Mihyr Muniwastik has proposed a sustainable development triangle at the 1968 Etcetera in Finland and it is a widely accepted concept because it encompasses the three major aspects of sustainable - social, economic and environmental (Kuroishi, 1992). Muniwastik’s model of sustainability shows how sustainable development should be in a balanced and the integrated mode, which materializes its own driving forces and objectives. From Munisik's point of view, those aspects are interconnected and interrelated with each other and the most important part of the triangle is the base which is the quality of life of people with a healthy living condition.

The triangle is one of the essential principles of a healthy living condition.

The model of sustainability is in practice and to see if they follow the spirit of the sustainability in this way.

CONCLUSIONS AND RECOMMENDATIONS

After analyzing the diagram of interviews, a few conclusions can be drawn:
1. After comparing all the interviewees' results, the diagram to the principle of sustainability, three of the results show quite similar diagrams in which there is only one group shown the environmental and social aspects of the project, the other three pillars will be changed under different conditions. Sometimes, the relationship between environmental and social aspects is the easiest to achieve. This finding is opposite the Muniwastik's model of sustainability. The reverse arrow doesn't exist. It could be a problem of the setting of the assessed tool. All the contexts are divided and from separate categories instead of preparing an integrated research. Since approaches to sustainable architecture as a guide to achieve sustainable architecture, it may influence designer's understanding of multiple approaches. By the way, there is an inadequate understanding on social and economic aspects. As a result, architects put focus on the aspects which are easier to deal with.
2. Four of the result diagrams show that the three pillars are not always connected together in one. It is happen in one of the interviewees. Since the model of Agenda 21 is challenging, some of the interviewees mentioned that the model is not always applied to the project. Based on all the results, it is clear that the relationship between the environmental and social aspects is more stable than economic aspect. Since the economic aspect is the most significant among the three. It is because in that case there is an urgency for project's success which the economic aspect is the easiest to deal with. But it appears to be a good trend that most of the local architects hardly have the sense of anything architectural fortune not just for achieving the best environmental performing building, but also consider the economic aspects of the people who use it. Some of them may consider how to achieve a better productivity. Even the sustainable architecture does not mean an overall approach up to this moment; it is good that most of the architects know that they should do. It is not necessary to make works for completely a full complete set of requirements. Many of the components can be considered in the future assessment tools.
3. Three of the architects think that the three pillars should have equal significance. However, the results of the interviewees indicated that all of the interviewees have put most of the effort on doing environmental sustainability and social aspects of their projects. It could be related to the assessment tools. Content of environmental aspect are more than the social aspects in the interviewees. Very few credits are dropping the attention to the other two aspects. As a result, the architects may be influencing the assessment and decision process of the other two aspects. More assessment credits could enhance better performance in the two other aspects which are more focused and valued by the people who use it. Some of them will also consider how to achieve a better productivity. Even the sustainable architecture does not mean an overall approach up to this moment; it is good that most of the architects know that they should do. It is not necessary to make works for completely a full complete set of requirements. Many of the components can be considered in the future assessment tools.

Next is the result diagram. It shows that architects are more familiar with dealing with environmental issues than the other two. Even architects agree all three pillars should have equal significance, but limited methods are applied to the projects. It could be difficult in making the social and economic aspects qualified of the social aspect is quite obvious and the economic side is a whole range. Besides, credits for achieving social and economic aspects are placed in the local assessment methods while the international tool - the GSTB 2005 is starting to include these two aspects. GSTB 2005 could be as the blueprints for achieving a more balanced-sustainable architecture.

BASE

On the result diagram, it shows that architects are more familiar with dealing with environmental issues than the other two. Even architects agree all three pillars should have equal significance, but limited methods are applied to the projects. It could be difficult in making the social and economic aspects qualified of the social aspect is quite obvious and the economic side is a whole range. Besides, credits for achieving social and economic aspects are placed in the local assessment methods while the international tool - the GSTB 2005 is starting to include these two aspects. GSTB 2005 could be as the blueprints for achieving a more balanced-sustainable architecture.

6. Government should initiate to educate the public and the building industry in promoting a sustainable approach. In that way, because for most of the time, only concern is the major consideration of the designers and the think of the design teams. But the public can understand that sustainable resource is one to lead towards to giving benefits to the people in the world. The government should initiate to educate the people how to make the importance and know what they should do. Without the citizen's and the government's support, architects could hardly carry out their plan.

At this moment, sustainable architecture is still immature. Firstly, the industry understanding of some aspects of the architects should not put effort to what the people do not want to do. Secondly, the general population of the society is not enough to understand the sustainable approach that the architects follow. The mechanism of sustainability is immature. Most of the organizations are self-regulated and promote green architecture rather than sustainable architecture. Then, social and economic aspects are neglected in the assessment tools. Researches and conferences may help to define contents of all the aspects that the building industry in need of common views on the issue. The government should take the leading step so that the building industry could be pointed towards more balanced sustainability.