Inter-discipline Integration Implications of Sustained Development of Architectural Education

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Abstract: This study seeks to build up the overall framework for the contents of the sustained development through the exploration into the sustained development related documentation within the scope of topics of society, economy, ecology and environment; in turn, within such framework, objectives of the sustained development education of future architecture are finally concluded through the exploration into the documentation related to the sustained development education, and sustained development of city and architecture for the reference by the planning of the courses for the incubation of talents of sustained education of architecture.

I. Introduction & Rationale of the Study

Sustained development contents include the examination of the interaction among ecology, society, economy and environment to pursue the three-win situation of Equity, Economic Efficiency and Ecological Integrity. City and architecture constitute the sources of environmental topics. Promotion of architecture and city sustained development facilities the arrival at the objectives of the sustained development. Within the configuration of the sustained development, both of the sustained architecture and city include the consideration in three major orientations of the integrated design of the ecological system, coupling of industrial systems and technical innovation, and the construction of assessment indices. More than just a combination of multi-school, multi-discipline and multiplex, sustained architecture and city relates to a comprehensive engineering of compilation and integration. The education of sustained development is crucial in the incubation of talents required in pushing forward the sustained development (Vargas, 2000).

Therefore, the development of the green architecture settler and talents who are capable of carrying out the architecture and city sustained development is essentially the objective of the sustained development education for architecture in future (Huovila, 1997). Economic activities of the mankind have damaged the natural environment and resulted in ecological crises, wherein, the society, economy, ecology and environmental are mutually affecting among one another. Sustained development being the highest guideline of the international organizations in facing the transitions of the global environment contains the review of the interaction among ecology, environment, society and economy (Teichler, 1998).

It is the integration that has not yet seen in the history of economic development, environmental protection and social movements without compromising the coexistence of the big three *E*'s, respectively, Equity, Economic Efficiency and Ecological Integrity. To the

promotion of the incubation of the talents required in the sustained development, education is the key (Amman, 2003). Integration is a must in the sustained education, and the sustained concept has to be deep rooted in a balance viewpoint in the fields of society, economy, environment and ecology. Consequently, the sustained education is a learning education of integrated disciplines (Hoey & Nault, 2002).

II. Significance and Contents of Sustained Development

No international meetings since 1987 Montreal Convention have been held without examining the living environment for the next generations in facing the ecological crisis resulted from the natural environment spoiled by economic activities of the mankind. Sustained development has become the thinking and the action for the transition of the economic model in the 60's into the environmental mode after the 70's. The twenty-first Century is the economic age of knowledge, and pursuing the sustained development of environment, economy and society in the era of electronic economy where sees rapid information flow defines the vital objective. The high education provides the key place for the development of knowledge economy and following through the education of sustained development (Foray & Lunduall, 1999). Today, in college, the instructor in the course of professional area directly passes the true knowledge compiled by experts to the students, who in turn are deprived of the self-learning competence and exposure to the learning in a comprehensive areas involving the ecological, economic, environmental and social views.

A. Significance of Sustained Development

Concepts of the sustained development in the Brundtland Report published in WECD, UN in 1987 had been widely accepted and approved in its most generalized significance in 1989, and won a global consensus in the UN convention of environment and development held in 1992. The sustained development referred in the Report shall be defined as "the development that meets the contemporary needs without jeopardizing the ability after their needs by the next generation". The term of sustained development contains two critical concepts, respectively, the needs and the limitations. For the former, the needs shall be placed on a specially favored priority for consideration particularly for the basic needs, rather than desires, of the poverty in the world; and the latter, the ability of the mankind in satisfying its ongoing and future needs given with the present level of technology and the social organization shall be subject to limitations imposed by the natural environment.

Furthermore, within the context embedded in the definition, the sustained development contains three principles of Fairness, Sustainability and Commonality, wherein, fair distribution to satisfy the basic needs of the contemporary people and the next generations is addressed for the social aspect; seeking the sustained economic growth based on the protection of the natural system on the earth, the economic aspect; and the harmonious relationship between the man and the nature, the environmental ecology aspect.

Therefore, the sustained development seeks the equal terms in man-to-man and man-to-nature by fair approaches for the effective control in the environmental, economic and social development as a whole, and the effective conservation and development on the premises of not challenging the life sustaining tolerance of the ecological system on earth to pursue objectives of economic and social development while satisfying the needs for development by the contemporary and the subsequent generations. That is, the sustained development shall satisfy various needs of the mankind so that the individuals enjoy full development while the resources

and ecological environment are well protected without causing threatens to the survival and development of the next generations.

The sustained development addresses three basic concepts, respectively, the ground works of sustained utilization of the resources in the natural environment and a sound ecological system; having the sustained economic development as the core, and seeking the progress in every aspect of the society

B. Contents of Sustained Development

In the ecologic context, no living thing can survive in the absence of an environment. Creatures and environment constitute the biological ring on the surface of the earth that contains countless ecological systems including the ecological system of the mankind, in diversified species and sizes. The concept of the environment includes each and all things that the living creature is concerned, other organics and the world of non-life demonstrated by the form of life. Organic environment contains the weather, physical and chemical compositions of the soil, changes of the seasons, and the relative length of day and night. The man, being one of the links of the ecological system in the biological ring of the earth shares with other species in the ecological system in the recycle of energy and substance, and equally like other living creatures, the man's survival rests upon the environment.

A society relates to a group of people living within the same territory and sharing the same culture. The society of the mankind recombines the ways of production and consumption and the revolution of the human history through the means of survival in the sense of economy, and changes the living modes existing in the multiple layers of the society. Therefore, the profile of the economy cannot be separated from the social structure. From the viewpoint of economy, the economic behaviors include consumption, production, work and leisure, decision making of the government, and the loans granted by the financial institutes. Economic behavior essentially takes advantage of the limited resources to supply products and labor services to the consumption now and in future.

The sustained development shall be examined at the same time in three aspects of environment, economy and society. Its implications cannot be considered solely in the economic, or environmental aspect. When judged in the entire environmental system, the sustained development involves a large system defined by the interaction among three subsystems of environment, society and economy that are inter-dependent and mutually affected. The balance among environment, economy and society must be examined under the same topic for such examination to become meaningful. It is highlighted that the orientations of the society and the economy shall be generally embedded in the orientation of the environment, since the ecological system can operate without the element of the human being. On the contrary, the human being fails to live in the absence of the ecological system. Whereas, production and consumption activities within the realm of economy are created after the maximal welfare of the mankind, the aspect of economy is well contained in that of the society.

In the pragmatic experience of the economic development of the world, the global economy today is undergoing a second wave of industrial revolution with the synchronized movements of knowledge (including information) and ecology (including green) efforts as the axial, and an economic revolution that is in the sense of ecology (Huovila, 997_. Both revolutions have triggered of gigantic and profound changes to the structure of the modern industry, economic structure and how they are related to the social economy to promote the emergence of new economy. The future economy will have to incorporate with multiple

orientations of society, biology and environment thinking in the formation of a knowledge and ecology new ear of economy to maintain the circulation of the natural environment and the diversification of biology. When the sustained development is interpreted by the principles of Environmental integration, Social equity and Economic efficiency, it is argued that Environmental integration relates to the sustained ecological environment without compromising the ecological function of diluting the refuses by the environment, and the maintenance of recycled resources; Social equity seeks the fairness between generations, and between species; and Economic efficiency to be strictly executed under the principle of fairness by addressing the accountability of internal cost and external cost, i.e., considerations of environmental cost and the computation of consumption cost. Wherein, the environmental cost includes the solving of remedial costs of ecological crisis, degraded resources and pollution incurred from the manufacturing process while the user cost rests on the estimate of the value of use of future resources.

Therefore, the sustained development contains thinking process of the interaction among elements of ecology, environment, society, and economy. That is, the environment shall be the topic inviting common examination within the framework of the biological ring, and the society organized by the mankind and its activities, like other species, must depend on the natural environment for the survival giving the society the awareness of protecting the environment and the pursue of the fairness between generations and the fairness of allocation and use of ecological resources under the principle of equity. While developing its economy, the mankind shall refrain from the tolerance of environmental dilution and homogenization to satisfy the material demands of the human society. In the execution of Economic efficiency under the principle of equity, environmental cost shall be included in the development costs, and the society shall not become the victim of damages from ecological crisis and environmental pollution resulted from the development. Economic development, conservation and development of environment and reuse of energy shall be done within the tolerance of the life maintenance system of the global ecology to ensure of the functions of energy and food supplies and homogenization of pollutants provided by the ecological system, meaning the following through of the principle of Ecological integrity to maintain the basic standard of recycling of substance and energy in the ecological system. Ecological economy relates to the pursues of the integration of the sustained social and economic benefits with the ecology by the mankind, and that directs the vital orientation for the economic development in the twenty-first Century.

The integration of economic development, environmental protection and social movements in the sustained development has never happened before. With the environment as the platform, the three-win situation of those three big *E*'s, respectively, Equity, Economic efficiency and Ecological integrity that share consistent coexistence and tolerate mutual influences.

III. Sustained Development Education

A. Significance of Sustained Development Education

Human Resources (HR) is the most critical factor for the success of the tasks of the sustained development, and developing HR has to emphasize education and health. Health care and investment in education are the basics for everything. The people can only be familiar with the sustained development to reach the consensus through the popular education and information, thus to take joint action before the sustained development has any chance of success. In the meeting of international environment education held in Tbilisi, Russia by UNESCO in 1977, environmental education was defined as "a type of education process,

wherein, the individual and the society become to know their environment and the interaction among the living creature, physical, social and cultural compositions that make the environment thus to acquire knowledge, technical ability and sense of value while individually or collectively solving the on-going and future environmental problems" (UNESCO-UNEP, 1977). The environmental education addresses the education of strict aspect of the environment with the primary purpose to develop talents with expertise in the professions of pollution control and prevention and environmental conservation in creating the correct perspective about the environment by the mankind.

The scope of sustained development education appears to cover up the environmental education. It highlights the biological and physical aspects as well as the political, social and economic aspects of the environmental education. A book titled "Education for Sustainability ---- an agenda for action" published as a result of a roundtable meeting held in 1994 by National Forum on Partnership Supporting Education about the Environment sponsored by the President's Council on Sustainable Development defines the sustained development education as a "life learning process that leads to the development of a citizen who is knowledgeable and involved, capable of creative problem solving technique, trained in science and sociology, and taking accountable individual and collective actions that warrant sound environment and economy prosperity in future" (**http://www.gcrio.org/edu/pcsd/toc.html**). The purpose of the sustained development education is to incubate the general public to be aware of the interaction between the human and the natural environments as well as issues derived from such interaction, and to help the general public develop knowledge and technique required to solve those issues.

Therefore, talents made out of the education are critical to the success of the promotion of the sustained development. The education of the sustained development is the extension of environmental education and development education (UNESCO, 1999). It relates to a life long learning process and pays the technique, knowledge, value, and attitude that take to improve the environment, the creation of an environment friendly new pattern of behavior, and the appeals that the political, social and economic aspects of the education shall take the sustained development of life, production and ecology into consideration at the same time (SAUVE, 1996).

B. Objectives of Sustained Development Education

Guiding Principles of Environmental Education Program address in the Belgrade Constitutions specifically points out the concepts of environmental education contains topics of integrity, life education, inter-discipline integration, active involvement in problem solving, balanced universal and hometown views, sustained development and international cooperation. The roundtable meeting of National Forum on Partnership Supporting Education about the Environment held in 1994 by President's Council on Sustainable Development lists six major educational commitments, respectively, life learning, inter-discipline integration learning, systematic thinking, partnership of learning and teaching, multi-cultural views, improved teaching and learning abilities. Therefore, it is convenient to summarize the following primary objectives and commitments of the sustained development:

_1_Inter-discipline Integration Learning

The education of sustained development must be integrated, and both pre-job and on-job trainings are required for the teaching faculties. It takes not only to integrate the environmental education, but also the laying down the sustained concepts on the balanced

points of the social, economic and environmental areas in the course of curricular development. While describing the inter-discipline integration of the sustained education, it is argued that any subject, topic or element is affordable to exist by itself. Therefore, the education of the sustained development can be deemed as the learning education of inter-discipline integration. Within the contest of the sustained development, the environment shall be the common topic while pursuing the co-existence of the big three *E*'s. Accordingly, it is safe to say that the education of the sustained development is the inter-discipline integrated education of ecology, environment, society and economy.

_2_Life Learning

In an era experiencing rapid information flow, and the progression of creative technique and concept in the continued environmental sustainability, one should catch up, or waived. The necessity of life learning is justified. The primary purpose of life learning is to build up the sustained social sense of value within a sound life education system for the promotion of the idea of life learning and by means of social learning. Therefore, the idea of life learning must be accountable for the education of the sustained development to always provide the opportunities for learning for the development of environmental citizens who is knowledgeable and competent in solving environmental problems to achieve the ultimate objective of the sustained society.

_3_Creating Partnership

A partnership for promoting the environmental protection works by and among the business, the community, the government, and the general public with the action partnership as the directing strategy and use of the resources of the education of the sustained development, and the manpower and resources of the communities are incorporated to have joint monitor and maintenance of the local, regional and national environments with the commitments of watching other's back. Furthermore, the education of the sustained development shall promote for local, national and global cooperation to build up a global environment information network through the partnership to effectively understand transitions of the global environment, the value of problem solving, and exchange of environmental technology. Therefore, since the united strength can be very great, the construction of a cooperative partnership provides the effects of achieving the monitor and conservation of environment by aggregate efforts of the society and the nation to follow through commitments of the sustained development.

_4_Accommodating Viewpoints of Diversified Cultures

Culture is the inner and deeper structure of a society and the individual culture varies depending on the society involved. Diversity of culture formed by multiple-element society is the very basic for the diversified living creatures while the diversity is a prerequisite of maintaining dynamic balance for any ecological system, also a vital index for the sustained development. Education refers to a process of cultural development and reconstruction. Should the ultimate purpose of education be the sustained development of culture, the process is the sustained development of education. Therefore, the education for the sustained development must be one of multiple cultures. Respect for the multiple-element culture views drives for the local and global teaching and learning. Meanwhile, in the issue of environment, the power for the environment maintenance is increased to promote the sustained development of the ecological system through the judgment of the sense of multiple-culture value.

_5_Reinforced Teaching and Learning Methodology

The contents of the education of sustained development can be summarized as the education with the student as the center in conjunction with the student's recognition and situation development by essentially addressing experience and cooperative learning, review of the systems from each and all areas as a whole, promotion of social awareness and criticism, continuous learning, outdoor and community job training while reflecting the significance of teaching and learning, including perception and sensitiveness for the environment, cultivation of environmental ethics and attitude, inter-discipline integration, equal concerns for global sense and regional awareness, and environmental action.

IV. Sustained Development of City and Architecture

A. City and Architecture vs. Society and Economy

Architecture is closed related to the civilization and the society where the civilization exists. Architecture is a collective work, a part of the human civilization; and structure of the civilization. Therefore, as a product of the human civilization, architecture covers the tangible and substantial environment of the man and nature, as well as the intangible environment of social culture, wherein, people reflect the way of living, activities, beliefs, and planned knowledge, then further express their sense of value, and global vision in architecture up the environment to live. Architecture is a minute culture, and it reflects all the strains in a body of culture (Tafuri, 1976). As long as the body of culture is sound, so is the architecture.

City is a social unit comprised of diversified members, and it is related to a mobile system created by man. Economic activities constitute an important factor pushing the city to grow. The city is urged to create major revolutions due to economic activities. As a result, the society is decomposed and reconstructed leading to more complicate city space and structure and impacts upon the social culture. Therefore, city development relates to a process of the progress of human civilization, also a mixture created under the mutual affects between the human society and the economic system.

What has been expressed by the construction of architectures in the city and its external space reflects the inner structure of the tangible and intangible environments of the human and the nature, and is also the symbol of the progress of human civilization (Bereiter, 2002). Therefore, the nature of the city is architecture, and the architecture is the soul and body of the city development (Collins, 1965). In its wide definition, architecture carries what is embedded in the city. That is, architecture and city are two sides of a coin; each affects and supports the other. In general, both of architecture and city are the vital products in the course of the social and economic development of the mankind.

B. City and Architecture vs. Ecology and Environment

Human society is observed with urbanized phenomena as a result of economic development that leads intensive growth of city population and unlimited expansion (UNESCO-UNEP, 1987). On the contrary, the increase of architecture, the shelter as a must for people to live in, and the mass consumption of non-energy saving materials have caused the city becoming the primary source environmental problems. Promotion of the operation of the system in a civilized city essentially relies upon two types of energy source, the fossil fuels that prevent from recycling, and that is recyclable from the natural system. The former when consumed cannot be reclaimed for reuse while damaging the mechanism of natural ecology and

the ability of life maintenance; and the latter includes the recycle of the natural world, and the circulation between the substance and energy of the ecological system. Mass energy sources consumed by the city and the resultant refuses, sewage and carbon dioxide are weakening the dilution and homogenization functions by the environment in the biologic ring, resulting in ecological crisis.

In the eighteenth convention held in 1993 with the topic of "Architecture at the Intersection --- Architecture up the future of Sustained Development" under the conviction of the sustained development, and the Chicago Declaration was signed to address that "architecture and its environment play an important role; accordingly, sustained development shall govern the thinking process for architecture on the utility of resources and energy sources, impacts upon health, and selection of materials without compromising the natural ecology". The convention also urged that all the architects in the world should be accountable for the "social, economic and environmental sustainability". Therefore, architecture in the 21st Century is actually heading for environmental protection and sustained development. City and architecture have become the primary objectives for the sustained development in the 21st Century.

V. Contexts of Sustained Development of City and Architecture

A. Architectural Contexts of Sustained Development

As the sustained development dominates the capital wave of thinking for the development of architecture in the 21st Century, implications of the sustained development for architecture vary by state. Each state has own architectural terminology due to its particular background of time and space. In Europe, it is referred as Ecological Architecture or Sustainable Architecture; and in North America, the Green Architecture. Sustainable architecture, ecological architecture and green architecture are basically in common and they at their best reflect the description from different angles to address.

Within the framework of the sustained development, the sustainable architecture means more than the concept of the physical architecture. It contains the general way of thinking in the orientations of society, economy and environment (Stum, 2003). It practicably covers all human activities and extends from the local up to the international level for sustained development (Nault, Leonard & Hoey, 2002). On the premises of the sustained development, architecture has to shake loose from its over-reliance upon the non-recyclable energy source and resources, and construct its new and multi-orientation connections with the society, economy and other manufacturing industries to make the architecture industry fused with and permeable for other aspects to eventually form a coupling similar to the food chain in ecology before having the chance to acquire new approaches to energy sources, materials and new technology, and further to warrant the adaptation and operation of the ecological systems on local and global scale. Therefore, architecture alone is never sufficient to describe the realization of the sustained architecture. Architecture shall become meaningful only when it is built upon the global scale.

In terms of ecological architecture, the architecture itself is deemed as an ecological system. Substances and energy sources cycle and transform in order within the ecological system of architecture through the design of factors of various types of inner and outer spaces of architecture to pay a architecture environment that features high efficiency, low energy consumption, free of waste and pollution and ecologically balanced (Stum, 2003). However, such an ecological system is hardly surviving in just single architecture or a cluster of architectures.

Therefore, the ecological architecture must go beyond the environmental space of a single

unit and it shall become meaningful when it is taken as a system of the entire industry.
Green architecture addresses energy saving (reduction of consumed resources), environmental protection (reduction of ecological burden), healthy and comfortable (improved interior environment quality), and efficiency oriented (balanced between economy and environment). It is a series of quantitative standards that gives scientific assessment of architecture and helps the introduction and promulgation of governmental strategies and regulations to follow through in the practical aspects (UNESCO, 1992).

When going beyond the environmental space of a single unit of architecture, the ecological architecture may be deemed as a system for the entire industry. Given so, the ecological architecture naturally fits best the sustained architecture. Therefore, within the context of the sustained development, ecological architecture and green architecture work complementarily in joint efforts to push the architecture for its sustained development.

B. Contexts of Sustained City

A city relates to an important geological location that attracts the population and economic development. It is not difficult for the sustained development to achieve its purpose of the sustained development for the city. The city, similar to other ecological systems, relates to an open system. It has to rely upon the inputs from external sources the energy and substance to maintain the operation of the city system. Relatively, it produces the high entropy phenomenon of refuses and waste heat that prevent restoration. The high entropy constitutes the main course of damaged environment. Angling at ecological theories, the city relates to the development of mutual coordination among the ecological system of the nature, the ecological system of the society and the ecological system of economy. Adjustments among those systems provide the objectives for adjustment and control of the city ecology.

Accordingly, the sustained city constructed out of the commitments of an ecological city that "meets the perspectives of conservation of ecological environment" defines the orientation of future development for the construction of a sustained city. It means to reduce the reliance of a city upon the non-recyclable energy sources, have the "low entropy" the guidance for thinking, slow down the disappearance of the global energy sources, and within the configuration of ecological theories integrate economic and social systems in the city to develop the city life of high quality and low impacts. All the substances and energy in a city are able to cycle and transform in order within the ecological system of a city to arrive at the objective of self-balanced functions.

That is, technology and technique are used to extract from the resources in the natural environment to transform them into internal energy source demands of the city, and build up a mechanism of reclaimable cycle, and finally fuse in the flow of substances and energies of all the ecological systems within the biological ring. The ultimate goal is to reduce the phenomenon of "energy limp tendency" in the city and in turn to make the city self-sufficient.

VI. Objectives of Sustained Education Development of Architecture

Education is critical in the incubation of talents required for promoting the sustained development of city and architecture. Therefore, the future architecture education shall cover the contents of the sustained education while the contents of the sustained development of city and architecture constitute the vital objective for the future education of architecture. Therefore, by integrating those viewpoints, the development objectives for the sustained education of the architecture can be summarized as follows:

1. To inject the crisis awareness of the sustained development into the students for the incubation of citizens with environmental awareness.
2. To have the Equity, Economic efficiency and Ecological integrity of the contents of the sustained development as the objectives for the development of the sustained education of the architecture for promoting a balanced development of social, economic, ecological and environments.
3. To equip the students with knowledge, technique and design basics involving all the aspects of the sustained architecture to maintain constant operation of the green architecture.
4. To develop the students the basic capabilities of the professionalism in all the disciplines of the sustained architecture so to effectively follow through the design and hands-on of the sustained architecture.
5. To have the sustained architecture with ecological economy value as the objective for protecting the ecological environment and the balanced economic development in pursuing the ultimate goal of the welfare for the human society.
6. To develop inter-discipline integrated learning curriculum complying with the sustained development for the students to be equipped with the proficiency to solve many inter-disciplinary issues of architecture environment
7. To build up the vision of diversified sustained development, and construct the sustained architecture for the regional culture of the society while providing the thinking of the sense of value of multiple cultures on the topics of environment to effectively protect the environment and promote the sustained development of ecological system.
8. To develop integral life learning system for providing the general public opportunities in the life learning of knowledge about the sustained development for them to become citizens who are always provided with the immediate access of the knowledge and technique required to solve the environmental problems, thus to achieve the ultimate objective of architecture the sustained society.
9. To have architecture up cooperative partnership as the target by incorporating the general public, communities, students and government agencies for the joint efforts in the monitor and conservation of environment for the aggregated results in following through the commitments to the sustained development.
10. To improve teaching and learning methodologies the sustained development with the student as the core to address the experience, cooperative learning and the general review of all the fields and systems of the sustained development.

VII. Conclusion

Both of the city and the architecture are products from the social civilization and economic development of the mankind, also the primary source of environmental topics. The sustained development of the city and the architecture are the vital objectives in promoting the sustained development of the 21st Century. Therefore, conclusions are drawn from the discussion given above by exploring into the sustained education of architecture:

1. Environmental topics including intensive population, energy source, disposal of the refuses, sewage, and carbon dioxide as well as the reduction of the use of non-recyclable energy source resulted from the development of the city and the architecture certainly cannot be solved by a single oriented filed. It involves the overall thinking process of cross and comprehensive engineering of multiple sciences, disciplines and works.

2. Within the framework of the contexts of the sustained city and architecture, it contains:

(1). The integrated design of ecological system: refers to the application of technique and knowledge related to environmental architecture and natural ecology to reduce the impacts upon the environment by constructional behavior and maintain the operation of the ecological system as a whole in the course of the human development.

(2). Industrial coupling and technology innovation: the industrial system becoming the architecture substances in the life cycle of the architecture shall be added into the entire cycle of the system of social and economic industries to couple to other industries, and develop ecological materials, innovation technique and energy sources to reduce pollution to the environment based on the knowledge and technical of the natural ecology designed by the integrated ecological system.

(3). Creation of assessment indices: the created indices may serve the basis of the fundamental standard governing the circulation of the energy from the ecological environment in pursuing a sustained society for the mankind.

3. The sustained education is the very root of keeping the sustained development to move on. In future the architecture education shall cover the contents of the sustained education and those of the sustained development of the city and the architecture. Therefore, the purpose of the sustained education for the architecture is to come up with the best green architecture settler and those who are capable of carrying out the sustained development of the city and the architecture. Objectives inferred by this paper for the sustained education development of the future architecture thus can be referred in the planning the curriculum of the sustained education of the architecture.

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