

GREEN ARCHITECTURE AS A WAY OF GREENING ECONOMY

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Nowadays, green architecture is being explored in order to meet the needs of people who try to adapt alternative ways of living with the changing conditions of biosphere owing to the fact that the earth suffers from continually rising temperatures, melting of icebergs, diminishing natural resources. Green architecture offers a large amount of help and solution to provide the emerging requirements of changing settings by getting to the root of the problem with nature friendly approaches. . For example, Acuff, Harris, Larsen, Magnus and Pumpbrey stated that 40,000-50,000 dollars were saved through the aggregation of energy conservation with on-site generation per year just in energy expenditure which usually takes place near the top for educational properties in Zeeland East High School (2005, p. 58). Therefore, green architecture, currently on the agenda of architectural community due to global warming, diminishing natural energy resources and the exploration of new potentials of architecture, has many impacts on global finance, human health and the energy resources.

Finance is one of the most significant issues in ecology. El Feky emphasized that GADS (Green Architecture Design Strategies) deals with the reduction of the costs of the sustainable building projects such as expanded time of architectural and engineering phases, modeling cost and time which result from integrating green buildings' fundamental elements to application (2006, p. 29). Above all, green architecture not only improves the environmental impacts of buildings, but also results in many financial benefits for builders. For example, green architecture provides energy and maintenance savings. Bradshaw, Connelly, Cook, Goldstein and Pauly indicated that Arroyo Chico houses which are mostly sold to the low-income customers with low income and it is a fact that these homes make the customers gain about \$25-30 per month from the improved, energy saving ventilation systems (2005, p. 52). On account of all these facts, it can be said that people gain more energy with less money by green architecture. In addition, one of the benefits of green architecture is cost savings during the design phase. Since it is important that the building is economically appropriate, the designer should pay attention to the costs of the building. The worth can be narrowed down by using green architecture with the government's help. UNEP stated that public-sector and local financial institutions are assisted by the government to share the risk which is born from the energy-efficiency projects (2011, p. 363). Taking all these facts into account, it is clear that the government provides various facilities to users in order to make green buildings widespread. All in all, it can safely be said that green architecture provides considerable benefits about money to users. As examples

show, both financial advantages for builders and environmental benefits, which will spread during years, bring a positive aspect for green architecture.

The second important effect of green architecture is that it provides healthier space of life for people. Kats emphasized that recent surveys conducted in the field of health and comfort showed that occupants of green buildings have better air quality than that of traditional buildings (2010, p. 46). To begin with, green architecture provides people with better living conditions which have significant impacts on them. For example, high quality of air and respiratory systems prevents many diseases. Seppanen et al. (cited in US Department of Energy [USDE], 2003, p. 3-2) stated that the main reason for diseases such as lassitude, headache and dizziness is the low ventilation rate per person. Fisk (cited in USDE, 2002, p. 3-2) indicated that allergy and asthma symptoms begin to emerge with dust and high humidity within the buildings. As Sieber et al. (cited in USDE, 2003, p. 3-2) added, air filtration and humidity control should be used to avoid the symptoms of asthma and allergies. Seppanen et al. and Fisk's research (cited in USDE, 2003) also pointed out that contagious diseases which spread by airborne microbes are transmitted through the respiratory system. Good ventilation in crowded places reduces the spread of disease through the circulation (p. 3-2). In view of all this information, it can be claimed that size and location of ventilation is very important in terms of human health in architectural design. In addition, daylight has an important role in optical health. The maximum amount of daylight received improves visual perception and ensures high performance. Heschong (cited in Cheshire, 2011, p. 12) reported that according to research in schools, students are 10 to 20 percent more successful in exams. According to research in offices, performance of workers increases between 10 and 16 percent. Figuero et al. (cited in Cheshire, 2011, p. 12) noted that personnel of the offices with windows allocate 15 percent more time to work than the personnel of offices without windows. Elzeyadi (cited in Cheshire, 2011) added that less glare between 3 and 7 percent provides faster reading and reduces the possibility of making a mistake (p. 12). In the light of all these facts, it is undeniable that improved visual performance brings high working performance. For this reason, windows should be positioned to take advantage of the maximum amount of daylight. In brief, it is obvious that improving the performance requirements of emerging environmental factors provides occupants with better living conditions.

Global finance, human health and energy resources are affected by green architecture which is the trending topic of architectural affairs. Green architecture takes an important place on global economy with its benefits and risks. Additionally, it is possible to obtain healthier societies by means of green design since it affects individuals physically, psychologically and socially. Finally, reduction of natural resource usage and environmental pollution are the main impacts of green architecture on energy resources. In short, it is obvious that green buildings result in better and more sustainable conditions for both people and

nature. Therefore, the growth on awareness and demand of green architecture in public, design community and market seems inevitable. Consequently, the exploration of green architecture should be supported by prospective studies and practices in the name of renewing current economy and ecology. For further research in green architecture, it is highly recommended that green conception must be updated in the light of ever-changing parameters of technology and nature.

Економіка для екології: матеріали ХІХ Міжнародної наукової конференції, м. Суми, 30 квітня – 3 травня 2013 р. / редкол.: Д. О. Смоленніков, М. С. Шкурат. – Суми : Сумський державний університет, 2013. – С. 121-123.