Preface

The architectural product, being a creation of a human work, a long time user produce, like any other product it has not only to be produced but also to get the user's disposal. A true architecture is that where thinking and human feelings come into play, creates an entire harmonic, which ensembles structure and possesses significance.

Architecture is always a response to tradition and culture of its time. It reflects the pulse of the society, environment action, life style of inhabitants and their aesthetic value as well as their building technology. Today several specialists in architecture and building design believes that, it is necessary to carry out an innovative creation of architectural produce, which keeps up a correspondence to the new demands of a full useful architecture but no more building.

As soon as we talk about passive and low energy building, many suppose that we talk about a machinery-building, a building without human sentiment. Others believe that passive and low energy building is an ugly creature.

Many engineers, designers, agriculturists, etc. wrote about low energy buildings, green buildings, etc. Although a few of them reached the right concept of passive and low energy building in concordance with the architectural conjecture. Therefore, we can identify the technical nature of these concepts. Passive and low energy building represents one of the most consistent concepts in sustainable building. A high quality of building model brings the thermal comfort primarily up-to-date to the user of the building with lowest energy costs. In this vision; all buildings can be one of the three conceptual categories relating to; *energy, natural and physical surrounding, and building design*:

- *The indifference conception*: energy used for heating, cooling, lighting, etc. is uncontrollable (this concept is clearly used in industrial and agriculture buildings).
- *The exclusive conception*: energy employed in building design is controlled by means of building materials, passive heat systems, etc. The building is isolated

from their surroundings (this concept is clearly used in passive and low energy buildings).
- *The selective conception*: all habitant factors such as human comfort, environment and surroundings, indoor and outdoor energy, local climate, architectural hypothesis, etc. should be employed in building conception. The environment behaves as such a selective filter with dynamic energy action to environmental incidents. That can be done by spatial configuration and optimal constructive solution to set up in detail and then through the fitting techniques that captures and convert free energy from the environment (this concept is the main aim of this book).

It is the difference between the term of "*Building*" as a policy and the term of "*Architecture*" as a strategy. "*Building and its component*" is a policy of human design, which admits the terms of passive and low energy concepts, while "*Architecture*" is a strategy, which include a large diversion of policies.

Presently it becomes an incorrect work manner when we take the building phenomenon and detached it from the large concept of architecture. Energy in passive and low energy building is an important factor; but it has an abstract act without human sentiments.

The human comfort is the vital aim of architecture where the interaction appears between the energy such an abstract act and the human feeling and comfort in which the balancing is extremely complex. The main aim of this book is to establish the commune working area by means of architectural hypothesis upon a low energy building design and friendly environment.

Actually, the problem is between the innovative architectural notion and the traditional concept of architecture. We need a clear response to the following questions:

- What can a architect do after a traditional education route?
- Where is the creation status in our artificial life?
- Is the remediation process affected by postgraduate route capable to build a competent architect?
- Where is our responsibility to nature demolishing process and climate change? The procedure of a traditional education becomes more diminutive to include all new requirements. We have to improve our life by an adaptive human creation fitting for our future sociality and nature.

The Academic Sphere

This book is in charge for phrasing and pursuing strategies for planning politics and spatiality for the development of an operative architectural orientation, throughout innovative interpretation of the architectural conjecture that combines stimulates the existing environment with human requirements.

This book extends the study of passive and sustainable building policy, in concordance with biophilic and bioclimatic architectural concept, in a global interpretation. The viewpoint of this book is both tactic and strategic.

Central District of this Book

1. Architectural theory and hypothesis
   It is an act of thinking, designing and creating a habitable space which is covering by a high performance human creation and not a buildings material. Where every architectural creation can be described by a building form, but not every building figure can be described by architectural creation.
2. Biophilic architecture
   It is a part of an innovative view in architecture, where nature, life and architectural theory combine to create a lively habitable building competent to satisfy the demands, constraints and respect for both people and the environment.
3. Bioclimatic architecture
   This notion refers to the idea of creating buildings and manipulating the environment within buildings by functioning with natural forces around the building rather than against them to create optimal physical human comfort.
4. Passive and low energy building
   This perception is a comprehensive approach to energy conservation which is usually requires high class insulation as well as a healthy ventilation system, that should be able to prevent the heat loss and increasing the energy efficiency outline to get the highest building performance in exploiters.
5. Sustainable devolvement strategy
   Sustainable development is a development that meets the requirements of the present without compromising the ability of our future generation to meet their own requirements.

Denmark, 2010 Amjad Almusaed

Springer

http://www.springer.com/978-1-84996-533-0

Biophilic and Bioclimatic Architecture
Analytical Therapy for the Next Generation of Passive Sustainable Architecture
Almusaed, A.
2011, XXIX, 422 p., Hardcover
ISBN: 978-1-84996-533-0