

BUILDINGS, CLIMATE AND PLANTS

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Buildings, Climate and Plants are three indispensables in a built environment. Buildings replace the original plants and create urban climates which may trigger many environmental issues. Climate influences the typology, performances and energy consumption of buildings and governs distribution, abundance, health and functioning of plants worldwide. Plants, in its return, bring many related benefits to buildings and generate Oasis effect in an urban climate. The three indispensables closely link with each other and create an unique Buildings-Climate-Plants system in a built environment. The mechanism of the system will have an important role in achieving sustainable development in a built environment.

Singapore city has been testified by the model. First of all, the current environmental issues related to the conflicts (i.e. UHI effect) between buildings and the tropical climate are measured. Although Singapore is a garden city where the development intensification is balanced with the nurtured landscaping to a certain extent, it is still a question mark whether the existing green could mitigate the environmental issues perfectly.

To achieve a sustainable development, the current landscape should be extended to individual buildings which is the root of a harsh urban environment. Therefore, a new three-dimension greening programme has been launched on the basis of the Garden City campaign conducted in the last 40 years. Greenery in the forms of nature reserves, national parks and large vacant areas is maintained at the macro- level while plants has started to be introduced into local buildings (their facades and roofs) in forms of vertical landscaping, rooftop gardens at the micro-level.

Through a series of studies carried out with different government agencies, the benefits of plants in mitigating the conflicts between the local buildings and the tropical climate have been confirmed. It is believed that a sustainable and balanced urban environment can be achieved in the tropical city with the maximum intervention of introduced plants and the tolerable conflicts between the climate and the buildings.

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Title of the thesis:	The intervention of plants in the conflicts between buildings and climate
Subtitle	A sustainable way to benefit the built environment in the tropical climate.
Sust. Concepts:	Greening the city with traditional landscape as well as 3-Dimension greening concept in the tropical climate

LIVING WITH NATURE IN HARMONY

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“Pigeon house” or “pigeon tower” is cylindrical and ornamented tower includes of three stories and thousands nests for attracting and keeping pigeon in order to producing fertilizer from their dung.

From an ancient time Iranians look at respectively because their lives depend on this element, fertilized land is important because nearly one third of Iran is desert so architects helps people keep the soil fertilized, by building “pigeon house”. These kinds of buildings are great masterpieces of ancient Iranian architecture that work entirely harmonically with nature.

“Pigeon house” or “pigeon tower” is cylindrical and ornamented tower includes of three stories and thousands nests for attracting and keeping pigeon in order to producing fertilizer from their dung.

Pigeon house are interesting from two points:

1-harmonical relation between nature, architecture and people

A-environment

B-economic

C-social

2-architectural aspects such as:

A-resistance against vibration that produce by flying pigeons

B-maximum surface of a cylinder

C-technology and material of construction

D-providing optimized space and suitable condition for pigeons

E-architectural solutions for protecting pigeons against other wild animals

F-architectural Solutions for protecting pigeons against climate changes

Reference:

1-“Pigeon house, respected usage of nature”, S Hadizadeh, TERRA 2003 conference, Yazd, Iran

2-“A glance to Iran• fs pigeon house”, 45 No, IRANZAMIN magazine, 1993

Introducing sustainable aspects of pigeon house in Iran

Title of project: Pigeon house, living with nature in harmony

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