ECO GREEN BUILDING ARCHITECTURE

ECO GREEN CONCEPT:

01. Enhancement of natural Daylight Utility

02. Enhancement of natural Ventilation

03. Minimum utility of non-degradable Hardware Materials

05. Mitigation of Aerodynamic Instability of the building

06. Maximum saving of natural Ground Topography

07. Preservation of Natural Biotic Life

ENTRANCE:

Visionary objective of 'Green Building' is to plan human habitats without compromising the Natural Ecosystem to assure following essential components for Sustainability;

1. Minimize as far as possible use of long term non-degradable building materials such as; concrete, cement blocks, asbestos, glass, burnt tiles etc…and appliances of non-recyclable alloys. That is in the aim of facilitating our future generations with a waste free land to build up their dream houses.

   Just look at the archeological remaining in the ancient royal city (4^{th} century BC) Anuradhapura in Sri Lanka and you would observe marvelous city planning & architecture with, reservoirs, stone ponds, and structures of temples etc . But you don't find there any remaining of king's palace or any other residential buildings and why? That is the clear indication how the ancestors save the land for future generation's residential and agricultural purposes by making their residential buildings with easily degradable building materials such as, wood, unburned clay bricks, lime etc.

   But just imagine what we are building today without thinking of an 'Undisturbed Land' for our future generations. They shall have no other option rather than living in the old prison that you built today. Waste materials should be the biggest issue upon the future generations.

2. Aerodynamic Instability is the other most important factor addressed by the Green Building Architecture. Building designers have to be aware of avoiding exterior rectangular edges as far as possible to avoid stagnancy of natural wind currencies across the land lot and the suburb. In that purpose 'boundary wall' of habitant's privacy has to be altered as 'boundary mesh' because natural topographic wind flux should not be entirely blocked by boundary walls.

3. Natural Ecosystem is not conserved unless the both flora and fauna are preserved well. Therefore feeding paths for creeping animals across land lots in the habitat should not be disturbed and several creep holes at least have to be provided somewhere below boundary meshes where as possible.
4. Energy free micro agricultural practices of water saving has to be adopted to enhance greenish look and eco friendliness in the habitat environment.
5. Green habitat planning scenarios must address surface runoff draining system and storm flood mitigation under 'Strategic City Planning'.

ECO GREEN BUILDING PRODUCTS & INNOVATIVE PRACTICES:

1. BOUNDARY MESH WITH BIO FENCING:

This structural design is easy and implementation too is more economic than building of hard boundary walls in the conventional technology. Boundary foundation structure has to be laid at least above one foot from the existing ground level with imbedded GI posts at a regular spacing. Then the coated wire mesh is applied so as to ensure natural wind circulation through the habitat settlements. Growth of suitable plants or micro agricultural aspects would create a eco-friendly greenish environment.

2. SUB SURFSCE TEXTURED AGRICULTURE OF WATER SAVING:

i. Agro Cube:

What is new there?

1. The entire agro cube is made up of ecofriendly bio degradable materials such as natural soil, coir fiber, coconut shell etc. (a little bit of cement and lime has been mixed only to harden the outer surface)
2. Watering once a month is sufficient because an innovative water storing technique has been provided in the clay cube.
3. A sufficient volume of composte is added for the cube in the make and no need of additional fertilizing for a period of nearly three months.
4. No water leaking from the cube at all, and you can put it on the dining table
5. Even direct fertilizer can be fed in to the agro cube by mixing with water.
6. The production remains nothing ultimately for the future other than natural soil.

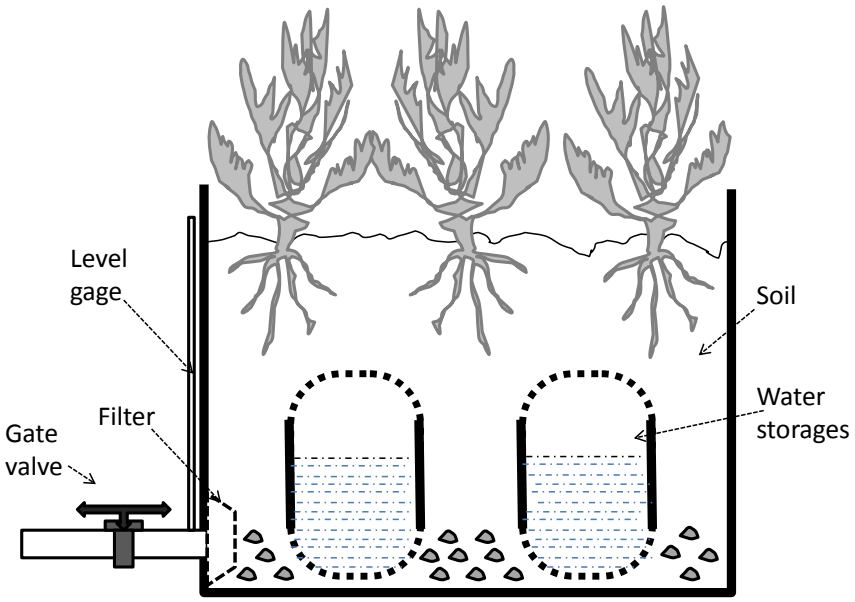


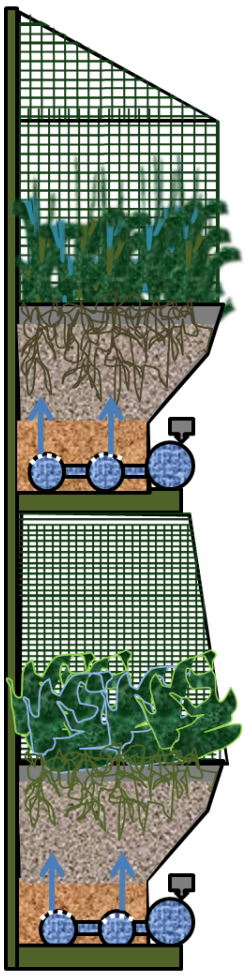
FIGURE-3

What is new there?

I. The store of water keeps the soil always wet through capillary action of soil

II. Air circulation through soil particles due to vacuum created within the water store is assured and therefore soil in the agro cube is not compacted at all.

III. Loosely packed texture is more suitable for plants which fix nitrogon



Green Wall Agriculture

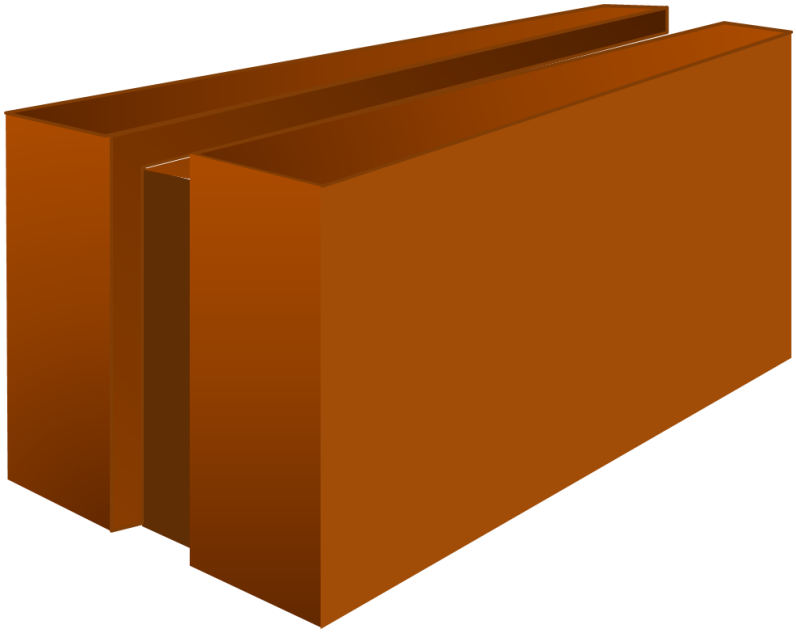
What is new there?

1. **This wall bracket made of steel can be anchored to the boundary walls**
2. **Not only flowers but micro agricultural practices can be applied in the boundary.**
3. **Direct fertilizer and chemicals free green agriculture can be practiced**

SUB SURFACE TEXTURED IRRIGATION (SSTI)

3. ECO FRIENDLY UN BURNED EARTH BRICKS:

This building block is made with clay, cement and lime in the proportion of 17:2:1 appropriately. The brick is not burned and it is light in weight because inside is made half void. The brick remains ultimately nothing as waste to the environment, rather than clay. The brick is so hard and of good looking that no need of plastering at all. It should not protect from rains because it gains more strength gradually from water. It's cooling effect is incomparable and the experiments are of good progress. The void in the brick is made by imbedding a plastic bottle (from urban waste materials) with a little water in it.



It assures an excellent cooling effect in a house because heat is absorbed for evaporation of water in it. In contrary it provides some heat to the house back under chilly conditions. The brick is still under experimentation about the production in mass scale.

2-SOME OF DESIGNS IMPLEMENTED WITH THE TOUCH OF ECO GREEN BUILDING CONCEPT:

1. HEXAGONAL CUBICLES (HONEY COMB TYPE) DWELLING UNITS:

What is new there with the **EGB-05/HC** models?

I. 05 no of honey comb type bed rooms with attached wash rooms
II. Sunroof facility for the roof top cubicle
III. Maximum daylight utility
IV. Energy free natural air circulation within the building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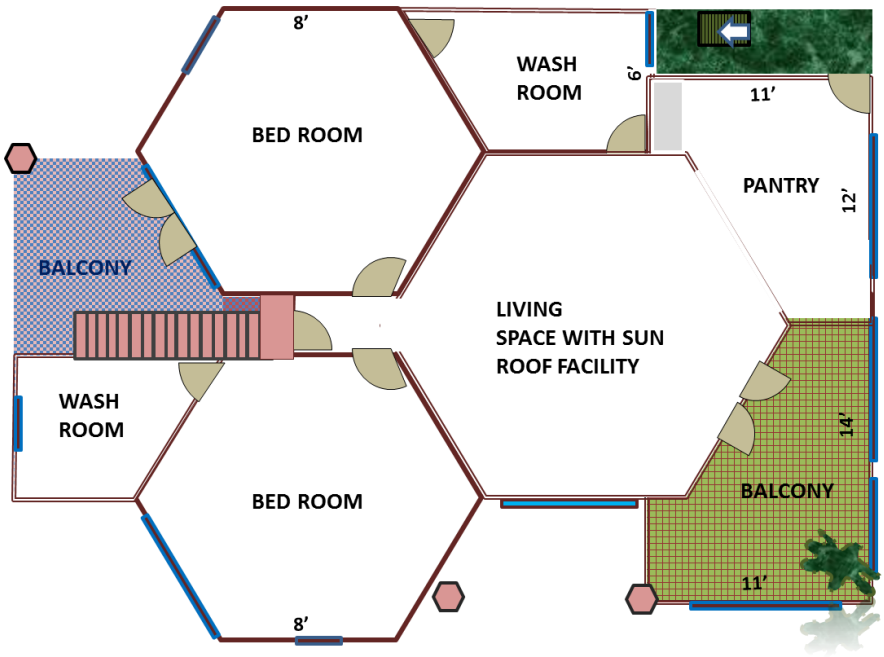
What is new with the **EGB-04/HC** model?

I. 04 no of honey comb type bed rooms with attached wash rooms
II. Sunroof facility for the roof top cubicle and upper floor living space
III. Maximum daylight utility
IV. Energy free natural air circulation within the building



HEXAGONAL CUBICLE ECO GREEN VISION:

Box cubicle structures related 'limited introvert thinking of mankind' is aimed to be changed by this hexagonal 'honey comb' type living cells to be an evolutionary improvement in human habitat planning. 'Collective effort', 'communal thinking' and 'extravert mind set' are the qualities expected to be developed by learning the lesson from bees who come out from hexagonal cells.

CONCLUSION:

There is no limit for innovations and designers would practice better techniques and better designs than the exemplary models I have just introduced as guidance. Also the priority has to be given for selecting easily available building materials from the local environment as far as possible.