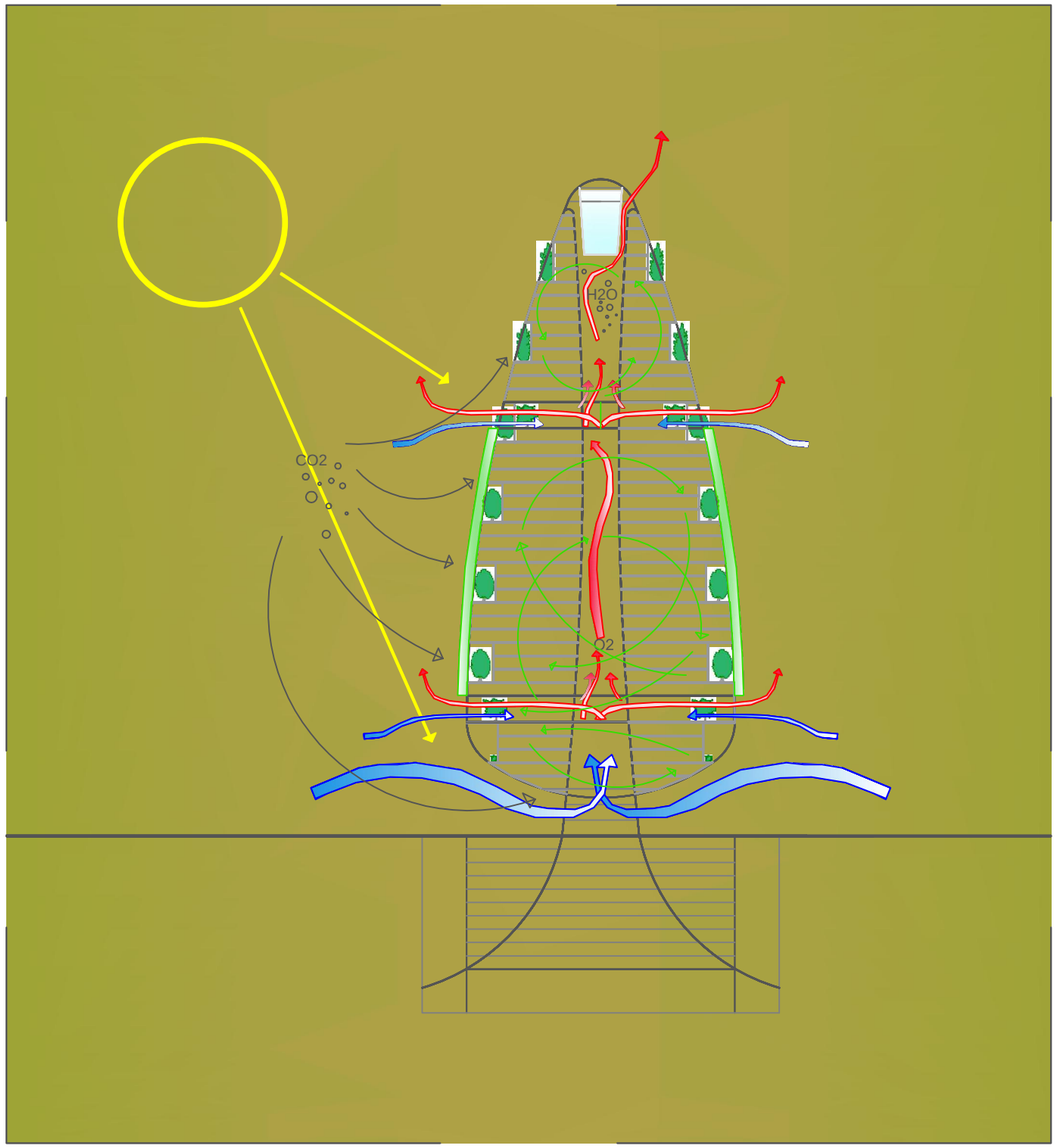
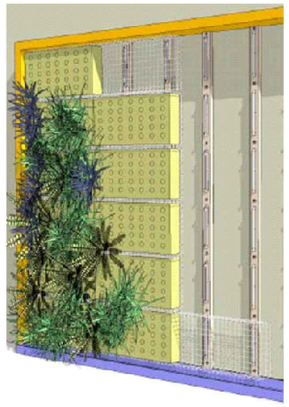
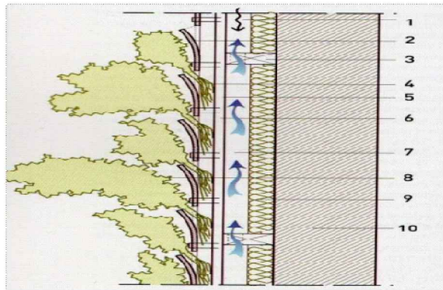


(figure 3)

The "technique of the hidroponia" has a structure that it consists of the installation of vertical laths (and some horizontal lines) on the wall, with the purpose to get a vertical and perfectly independent surface of the wall, in order to guarantee removal between the wall and the green structure, for the air circulation. On this system of laths a reticular polyethylene panel or PVC is fixed. This panel has the purpose to support the layers of armed felt that will resist the weight of the plants. In general, with this system, an approach average of 20-30 plants/m² can be placed (figure 4 - A). Where the felt is resistant and consists of 2 or 3 layers. These duly are fixed to its structure of polyethylene or PVC, where following a series of horizontal rips becomes as form of socket for the introduction of the root of the plants. The rips must very be small so that they hold with robustness the plants that initially are of small size (figure 4 - B).



(figure 4 - A)



(figure 4 - B)

Clarifying cut of an Alive Wall "Hidrópica":
1. Water; 2. Layer of felt or another one;
3. Horizontal lath; 4. Root;
5. Metallic staple; 6. Polyethylene layer or PVC layer;
7. Ventilated Box-of-ai; 8. Vegetation;
9. Thermal Isolamanto; 10. Structural wall

--- The systems of irrigation used in the Gardens skyscrapers:

Therefore it is truth that no garden skyscrapers can survive without an irrigation system, mainly in hot zones. In view of a economic perspective for the good development of the garden and in order to prevent the death of plants for drought reason.

As well as it is impossible to need the amount necessary water for a garden in height, however, its necessities of definitive irrigation vary consonant factors as the exposition, the climate of the region, the applied plants, stops beyond the system of applied vertical garden. For such factors different systems capable exist to answer of the best possible form the requirements of the good performance for the development of the plants :

The "technique of the hidroponia", is a system that if bases on an abundant irrigation, generally is a horizontal tubular system of irrigation for curtain. These pipes are perforated and must place in the maximum with distance 4m of height. In this way if it only can assure that the felt continuously is Wet with the purpose to supply to water and nutrients to the roots of the plants. This system is absolutely hidrópico, nominated does not make use of land nor vegetal substratum (with the purpose to reduce to the maximum the weight of the garden, ideal to alleviate the structural weight in high buildings) and therefore has continuum necessity and constant waters.

The water, enriched of nutrients, falls for gravity wet the felt and the roots, for times, a conventional system of water retraction is appealed to it. At the same time they can choose conceived systems to think about the ambient questions, a time that exist solutions how much to the exploitation of pluvial waters. The water can be stored and to prevent or to diminish expenses related with the water bombardment, opting to systems of drips for gravity where, for example, the waters of rain are caught and stored in higher places, as in the seedbeds of the trees that if find high more in relation to the area of garden in height. Having in account that the direct exploitation of the water of rain is not advised, a time that the water will be able eventually to contain harmful substances the health of the plant. Its storage in proper containers is advised alive, where later if it makes its correction and eventual addition of nutrients. This system still has the advantage of the easiness of support in the wall, easy adaptability the different buildings and vain types of wall.

They will have to follow this clarifying project of a system of irrigation with pluvial water exploitation, directed for the seedbeds of the trees, where they will be directed to be treated before the process (figure 4 - C):