

REQUIREMENTS EVOLUTION FOR DWELLINGS

BY

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Abstract. At a certain point of society evolution appears, due to an aberrant culture, more actually due to a subculture, one point occurred during the development of society, due to an aberrant culture, an exacerbated resources consumption, exaggerated, extravagant, that generates waste. Were produced objects without value having a small using importance, it appears whim, unnecessary, kitsch or groundless products. There was an exaggerated consumption even for fundamental or existential needs fulfilment. In our days in superstores the market basket is fill out and that goes to indigestion, obesity, diabetes, excess medicines, cardiac crisis and finally nothingness.

Key Words: Dwelling; Process; Instinct.

1. Introduction

In the beginning man tried to obtain benefits with minimum effort and at the same time with low material consumption.

Even during the period when nature was virgin, the human doesn't take from it nothing more that he needed; he did not freely destroy the environment from the simple reason that he didn't want to consume his energy unnecessary [1].

If we look carefully the living matter we can see that these subsystems grow in symbiosis.

No system, kind, genre, species, develops more by consuming in excess. It consumes from nature just the necessities to meet purely existential, essential, fundamental requirements.

The human, during his knowledge development, his evolution, his increase in culture and civilization began to consume more than his physiological needs [2]. At a certain point a no correlation appears between the user requirements and the habitation functions or between household characteristics and its performances [3].

A deviant evolution of culture can lead to exaggerated, extravagant, demands in no relation with the habitation requirements.

It may appear the so called „subculture” and its products, dwellings having questionable taste generally over dimensioned, excessively decorated, it appears in fact an involution of civilization.

Since ancient times, the human needs for shelter remained largely instinctual [4].

The human is seeking shelter or is making one by instinctual adopting forms with minimum volume and lower resources consumption [5].

2. The Traditional Constructions Evolution

If traditional dwellings are studied this approach is obvious. Some examples can be self-evident.

The Eskimo's igloo can be considered by keeping the proportion, one of the most reasonable dwellings, having a minimum resources consumption and smallest heat loss. An Eskimo hunter, in order to find shelter during night, builds in snow, a local material, a partially buried dome.

Using as tools, apparently undeveloped, that are available on hand, respective a bone knife, and a string from dogs harness, he mark out with his heel a circle having approximately 1.60 m in diameter. From the inner circle he cuts out snow blocks having around $40 \times 40 \times 10$ cm; these blocks are then disposed around him in order to make a dome. If he chooses to put the snow blocks in a horizontal row the dome will fall apart. For this reason, being alone, he has to put tilt blocks of snow into a spiral. First he supports the block wall enclosure and keep it pressed with his left hand; with the other hand he takes the second block and puts it near to the first one keeping it continuously pressed. By following this process he can build a blocks dome arranged in spiral, the last block forming the key, thus the structure maintaining its balance.

The Eskimo from inside cuts a door then comes out and starts to rotate the snow blocks to tighten and isolate the building. Then he comes back inside, close the snow door and sleeps.

The reduced dimensions of the igloo create an optimal ratio of interior volume and surface through which heat is lost.

Inside, only by the heat released from Eskimo, the temperature becomes positive ($1^\circ \dots 3^\circ\text{C}$) while the outside temperature is between $-40^\circ \dots -50^\circ\text{C}$ [6].

By instinct and by tradition the Eskimo made the most rational housing which can meet certain needs: is functional, durable, useful and beautiful.

Since ancient times, through trials and failures, by continue improvement, the human selected the best shelters that had a certain value at the highest level for the available environmental conditions.

The traditional country place has a special orientation South, South - East or South - West so that to be illuminated and to receive heat from the sun as long as possible.

A large part of the living room is occupied by a covered hearth, the oven above which usually is a sleeping place.

The performances of traditional housing have to be mentioned because they meet the needs of users at high levels with very low costs. It is an environmental

friendly place, having comfort performances difficult to be achieved by the actual buildings.

Among the features and performances that worthy to be reminded, the following may be listed:

- a) The building is generally made of a wood frame, the walls are made of clay with straws, making by that a good thermal isolation.
- b) The wood floor has a layer, 20. . . 30 cm thick, of clay with straws, realizing also a good thermal isolation.
- c) The massive hearth - oven, makes in the central part of the house a zone that heats and cools a long period of time, so an internal environment homogenize.
- d) The chimney smoke, well evidenced, makes both through winter and summer natural ventilation, an air remarkable refreshing.
- e) The house is provided at the façade with a covered porch, sometimes closed, that darken on summer the living room, but permits on winter the sun rays dispersion.

3. Conclusions

It is unlikely that the human at the beginning found shelter in caves, as is usually assumed.

The human appearance and development was made probably on a water bank in lowland areas, with warm, temperate continental climate [7].

When the weather was against him either because excessive heat, or due to cold, he tried to find shelter by crouching to the ground - digging with rudimentary tools a precinct. He tried to close as possible to the ground to bury under the soil and cover with dry vegetation, branches, etc.; earth provides heat in winter and coolness in summer.

That appeared, most likely, the first human made shelter, a buried cavity, more or less in the ground, the hut.

Along the time the human made, primordial by instinct, in direct contact with nature, through many trials, failures and successes, by tradition, empirically, the most rational shelters [8]. The shelter in direct contact with soil, the cottage, was traditionally improved and it existed in some parts of the world until the end of nineteenth century.

A traditional cottage, a hut, consists of a cavity partially buried in the ground, carved into bank, a roof made of wood with branches and leaves.

Among the characteristics of a partially underground home, a hut, the following can be mentioned:

- a) A relatively constant temperature in the precinct; the soil has at 1. . . 2 m depth a temperature of 12° . . . 14°C.
- b) The geothermic energy is directly used; from 12° . . . 14°C to a thermal comfort temperature it is needed reduced heat contribution.

c) The roof's massiveness, having a grassy layer of soil that ensures an important thermal inertia, leads to a relatively constant temperature, both in winter and summer time.

d) The massive hearth - oven contributes also to his temperature uniformity.

e) It began to grow, at present the so called environmentally friendly homes, built partly underground, with green roofs, light pipes, etc., presented as modern achievements, special, new-looking forgetting that the hut, the house partially buried, was probably first shelter made by human.

f) It is necessary to go back to origins, to the contact with nature, to which we belong and from which we receive information, power, inspiration or intellect.

g) In the second part of the twentieth century, from 50th to 90th, the urban population grew at an accelerated rate.

h) Before the 50th the urban population was around 200 million inhabitants but at the end of the century is approaching 3 billion.

i) The forecasts for the current century are in growth for the urban population, growth reduced by the new economic development that passes from the industrialized society to the post-industrial ones.

j) The new economic development no longer requires agglomeration of individuals, persons working on a program on a limited territory, no direct physical contact being necessary.

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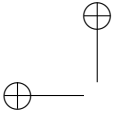
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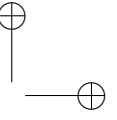
EVOLUȚIA CERINȚELOR PENTRU LOCUINȚE

(Rezumat)

La un moment dat a apărut pe parcursul dezvoltării societății, datorită unei culturi aberante, de fapt a unei subculturi, un consum exacerbant de resurse pentru satisfacerea unor cerințe exagerate, extravagante, generatoare de risipă. Au apărut produse fără valoare, fără valoare de utilizare, cu o durată efemeră de utilizare, a apărut moftul, gratuitul, inutilul, kitschul. A apărut un consum exagerat chiar și în satisfacerea unor nevoi existențiale, fundamentale; la festinurile romane se îngurgita fără limită și apoi se regurgita; în prezent în supermarketuri se umple troliul până la refuz și apoi se ajunge la indigestie, obezitate, diabet, medicamente în exces, crize cardiace, neființă.

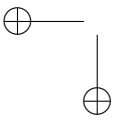


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