

# THE VICIOUS CIRCLE OF DEVELOPMENT IN HOUSING

## summary

Evolution is supposed to lead to some presumed future state of higher quality. It is implemented by constant change, development and improvement. In the field of housing two kinds of elements are to be defined: those which are constant and others which are due to change in time. A simple statement can be derived from the discussion that is dealt with in this paper: all the basic human needs sustain during the history; what is being changed is the way how they are fulfilled. The four decisive factors to shape the housing are pointed out: environment, government, culture and technology. While the environment has contributed to the man's evolution it is necessary to realize that man himself has affected the environment in much more radical way - to the very edge of equilibrium. Hence the current ecological consciousness and the growing awareness about the consequences of man's doings.

## key words:

evolution, housing, environment, culture, government, technology

Development, progress, improvement... are all terms connected in our minds to describe the goal of the process called evolution. Is there really such thing as evolution that means constant changes to a higher, better state in our special field: housing? Or is there only a constant sequence of changes that bring forward better quality of life for actual generation but in a longer span of time things do return to the same - although in another shape?

The standard description of basic shelter or better to say of "what is dwelling" goes as follows:

- enclosed space,
- provision of thermal insulation, water and electricity supply, sanitary equipment, natural light, ventilation, provision for preparing food (fire),
- space for storage of goods,
- security.

Such definition is superficial enough and one can presume that only some basic elements are constant all through the history: the man's measures (not entirely true), the need for food, rest, work, procreation, safety and social contacts.

The majority of other elements are due to change in time. It is our own attitude to decide whether the changes are for better or worse. If we consider the state of the art in modern developed countries we could generally maintain that the living standard has nearly reached the ideal rate of 1 room per 1 person, that lighting, heating, thermal insulation, sanitary facilities are of the highest quality, that dwellings are furnished with all technical inventions and facilities; they are fire-, water- and earthquake proof... But all that holds true only in comparison to the situation merely one generation back or to others not so lucky parts of the world.

It can be put also the other way round. The air pollution and noise in modern urban environment make it far worse than in "behindhand" countryside conditions. Tap water in modern towns is not drinkable any more - remember a clear mountain source? Modern man in high-rise block yearns for nature that is at hand any time to the "primitive" people.

Several activities and functions have been transferred elsewhere from the dwelling during the history. Work used to be very important part of homestead scene in some periods and social circumstances (farming, crafts, commerce, professional activities); it made the living environment exceptionally multilayered, rich and complete. The most common expression nowadays is "going out to work" and dwelling is there only to dwell in. Likewise the personal belongings have lost their material size and have been reduced to standard household furnishing or even changed into quite immaterial state (money on bank account).

Repair and maintenance have become professionalized and taken care from outside (washing, cleaning, household machines servicing). Children go to kindergarten or spend their day at school. Nursing sick people has been more than often transferred to hospital. Birth and death only rarely take place in the domestic family circle. Religion rituals, icons and altars have all vanished from dwellings.

Again it must be emphasized that also the opposite trend can be observed. Quite a lot of features have been introduced or even reintroduced in the dwelling. Water and energy are being brought "to the spot". Informations of all kinds can be obtained at home by modern IT technology. All products of art can be stored and enjoyed at home too (books, records, films, paintings). Recreation and body care have been extensively developed and spaces and facilities provided (bathrooms, saunas, swimming pools, solariums). Work has returned first as a hobby, later as a cottage

industry and today as a home office virtually connected to the wide world.

## ENVIRONMENT

Mankind has evolved and took separated evolutionary direction by accomodating environmental componets to its own advantage. A man as a builder has taken a piece of environment (earth, stone, wood) to build his shelter. It has caused double consequences: there is a gap (absence, deficiency) left on the spot of taking away and a surplus, an aggressive intervention in the space where there the shelter has been built. In both cases it means visual changes expressed in material (absent or added).



Figure 1: Cutting wood to build a house

After thousands of years the modern man lives in urbanized environment or at least in "cultural landscape". people who live in the "wilderness" are considered to be "primitive". At the end it must be realized that environment may have contributed to the evolution of man but that man himself has affected the environment in much more decisive way.

In the idyllic era of the beginning of history it was all very simple. Cutting timber in the woods to build a house caused no harm to the jungle. To collect stone for building in rocky hills made no difference. To build a house out of mud and clay in a river valley meant nothing - water brought new material all the time. To build an igloo out of snow was the only possible solution - again the source of material was never exhausted.

Today the things are quite different. Deforestation of tropical regins follows the demand for quality wood in developed countries. Centuries-long demand for white marble devastated the whole Carrara region. Construction of big housing estates made the cement industry cut off entire hills of marl stone.

Only a few centuries ago settlements and cities were only special concentrated spots in a landscape, seen from the distance as strange apparitions of unusual attractive force. Today whole regions are urbanized to such extent that it is impossible to see the boundaries. Paris from Eiffel tower is nothing but a grey sea of roofs. Even in smaller housing estate quite often one sees nothing but buildings and buildings, more and more of the same.

So there is a catch. Man has created his own living environment. As he has already taken too much and built too much there is only a small portion of untouched natural environment left. And he

realized that it is essential for his well being and even his survival. He is not satisfied with what he has done.

At the end of the loop modern man has evolved a new consciousness. He began to esteem everything natural (parks, green belts, forests, organic food) and everything old (preserving cultural, historical, artistic heritage). It appears that recycling is one of the most important issue: reuse of materials, reuse of old buildings, reuse of abandoned land (brown fields, gravel pits) and even creating natural environment artificially (like polders in Holland or land art in USA).

## GOVERNMENT

Land use and urban planning have always been implementation of power, be it pharaoh, king or ruling party.

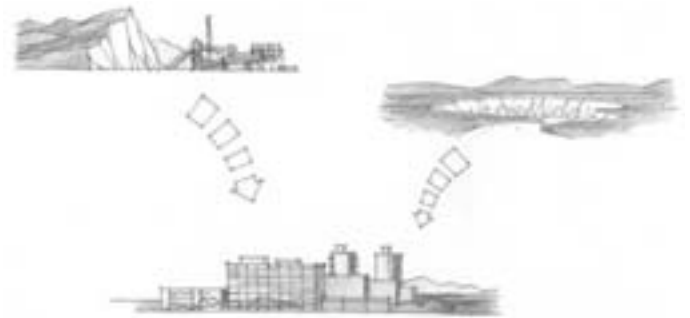


Figure 2: Agressive interventions in space: gaps and surpluses

The great Vitruvius was but Caesars engineer who knew the ways to support the warfare tasks of beleaguering fortresses and conquering new territories for colonization. The famous and beautiful Roman cities have been planned and built under strict (military) rules which included also canonized shapes and measures. In mediaeval times the landlord decided where his vassals were allowed to settle. Towns emerged to get rid of aristocracy and church but new power with new rules had to be imposed which were based on money and wealth.

The modern national government has concentrated the power of land use and planning decision long before professional knowledge and institutions emerged. Hausmanns interventions in Paris are the most notorious example. A very simple rule set upon expanding Singapore by British governor has created beautiful streets; their remains are today considered as worth of being preserved. In our country the famous empress Maria Theresia is still remembered for her enlightened if enforced rules that changed the outlook of settlements and lanscape ( cadastre, masonry-built chimneys as the condition for marriage license, plastered eaves to prevent fire, taxation on number of windows - all very simple rules, understood by laymen and imposed by the state bureaucratic system).

In modern times several professions have been developed to help authorities in dealing with the problems of land use, planning and building. They may seem to be independent but even in the most democratic societies they invent the rules which are transformed into parliament acts and become the tools of power.

During the history housing problem has appeared as a national problem whenever the demnad for a large quantity has arised at a

short notice. It may be a consequence of big national projects (like the dwelling camp for builders of new Egyptian capital at Tel el Amarna), of intense migration from rural provinces in town (high-rise and dense Roman insulae) or just the need to concentrate people for practical reasons (labor colonies at the rise of industrial revolution).

In modern times the overpopulation exceeded the critical mass and the demand for shelter can never again be met all around the world. In solving the problem all kind of measures and systems have been invented. Governments have established special housing policies and even ministries, research institutes, financing schemes and standards. Methods for mass housing production have been developed mostly based on industrialized systems. Modern technologies from other fields have been introduced in residential buildings - the most wide spread among them concrete. New types of buildings were made possible that way (high-rise blocks) and also new types of settlements have appeared as the result (housing estates, satellite towns).

Modern democracies have brought forward a constitutional right to get shelter (socialism) or to have equal opportunities to get one (capitalism). Both resulted in the philosophy of equal needs ("equal stomachs") and consequently in standard dwelling size, layout and fittings and utterly uniform living environment at the end.



Figure 3: Fire regulations shape townscape

## TECHNOLOGY

Primeval shelter has been built of local natural materials (wood, clay, stone, hide, straw) and in self-help manner. Invention of tools made it possible to use more durable and sophisticated materials: stone cut to purpose, larger timber sections appropriately shaped for joining, brick moulded in universally applicable pieces.

The difference in meaning between domestic, practical housing construction and building for public use, for the ruling elite or god has always been expressed in the choice of materials. Dwellings have been built of lesser, cheaper and not so durable materials. Ancient Egyptian court house we know only indirectly - assuming that monumental palaces have been the same thing in bigger scale and that today's housing in Nile valley is still an echo of the tradition. If not for Pompei we would know much less about Roman dwelling culture. Even today the mass housing in underdeveloped countries is being constructed of cheap if not inadequate materials.

Only organized mass housing production has changed this general rule. The use of concrete in 20th century made it possible to construct high-rise and extremely dense living environment. It has several advantages: efficient (industrial) production methods, high structural performances and safety. It is also durable more than any building material until now - it will sustain for a long time and its destruction will be expensive. The concrete structures are very difficult to adapt so they are due to become obsolete. In most urban agglomerations all over the world this "concrete heritage" has become a burden, a social and economic problem. Although in some regions and countries other materials are being used in mass housing production (mostly brick and wood) the use of concrete can simply not be avoided any more, especially in earthquake areas.

The modern trends in architecture are focused on the non-permanent philosophy - even in public and monumental realm. As housing has always been under permanent pressure for changes, adaptations and accommodations to new needs of new generations it is obvious that modern housing architecture should adopt this attitude. Temporary building is at the end considered as the most sustainable one. It is no wonder that modern ecological and sustainable housing architecture turned "back" to the natural, renewable and reusable materials: brick, clay, wood and straw. The loop is closed again.

## CULTURE

Housing is a part of broader term "material culture" as ethnologists call the special human activities involved in transforming environmental elements and objects to his own benefit. It is a complex system of tasks, relationship and behaviour that result in special sorts of material products, tools, works of art, clothes and buildings.

Parallel to the increase of personal standard people become effeminate. They want to retreat to their own rooms, they need to be warmed or cooled excessively and they keep their dwellings as clean as possible.

Human behaviour is one of the most interesting field to have direct impact on housing or more exactly on living pattern (often described as dwelling culture). It changes in time and place constantly.

"Primitive" societies have strict social structure and strong rules to be obeyed regarding the attitude between privacy and public. One was not allowed to look into king's eyes but it is commonly known that king of France used to give audience sitting on the stool with chamber pot. Shame and the attitude to nudity have



shifted in history and even now there are big differences. It is still natural to be nude in some remote places in Africa and South America. But the latest fashion in Western world tends to show more and more of the (female) body again (transparent clothing, topless bathing). In a modern house the bathroom has become a large space, well lit and equipped and connected to the bedroom through transparent sliding doors and screens.

In northern Europe people generally like to keep wide windows transparent to show off their cozy apartments and to display their well-being. In Mediterranean basin special feature has been evolved long ago: the system of louvres, screens and curtains which allow people to look out and remain unobserved. The strict visual and acoustic isolation of lavatories is essential in rather small modern flat. In Roman times public lavatory was a funny open place and visiting it was a kind of social event. In a mediaeval farm there was no such thing and in a 16th century rental house of flats there was only one common privy at the end of the corridor.

Culture is one of the most sustainable form of identity. In recent global migration processes people from remote countries find themselves in alien environment and try to preserve their pattern of living. Migrants from rural regions keep domestic animals and organize picnics on their balconies in town. The standard Islamic division of the house in mens and womens part has to be taken into account also in housing for respective immigrants in northern Europe.

Nevertheless the contagiousness of example has caused an overall transfer of cultural models everywhere. The local tradition and context are not given any consideration any more. People in rural environment want to live in a house like they see in suburbs. People in Middle East build European villas with no attitude to local climate and tradition. The new- rich in Slovenia build themselves pop-architecture in the diminished shape of mediaeval castle.

## CONCLUSIONS

The way how the basic needs are fulfilled have changed radically in time.

Thousands of years people walked to the sources of water. Later they invented canals, pipes and aqueducts to bring the water near the house and into it at the end. This is one typical evolutionary vector in living standard that seems to have reached its ideal end. The next step is in controlling the quality of water, metering its quantity and paying for it. The worst scenario - already real - is buying the bottled water while the tap water is not drinkable any more. The "source" is again out of the house. The loop is closed.

Fire was used for cooking in the first place and later for heating. It started with one central fireplace in the hut or tent. Later several kinds of ovens and hearths have been invented, other combustibles found. Heating has become more and more sophisticated and supplied from distance. People do not like any more to accommodate themselves to the changes of climate in living environment. But they do need a surrogate for live fire; they install open fireplaces just for pleasure and decoration.

A lot of everyday activities in dwellings are constant but take different shapes in different eras. To go shopping may be

considered as going to the woods to collect fruits. Going to work is not much different as leaving home for hunting. Watching television in the evening may be compared to sitting in front of the fire, listening to fairy tales while hypnotized by twinkling flames...

So the question is not "what" but "how". Human needs are essentially the same all the time. What is being changed is the way how they are fulfilled, the quantity, quality and availability of goods, spaces and buildings.



Figure 4: The real and virtual

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