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SUSTAINABLE DEVELOPMENT REFLECTED IN THE VALUES OF TRADITIONAL ARHITECTURE

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Abstract: The way in which the human-nature-technology triad acted in the past and lead to the appearance of real models of vernacular architecture and aesthetics of folk technology should be a stimulus and an example for the future aesthetics of an environmentally way of building and the use of non-conventional energy technologies.

Keywords: traditional habitat, folk technique, household, rural life.

1. INTRODUCTION

Environmental decay is the result of economic activities created and developed by man in his quest for prosperity and comfort. In essence, the concern for environmental protection is a form of negotiation in which we need to know what Man can make of nature in order that HE survives and what he should not do against nature so that IT survives.

Recent climate changes have dramatic effects on human life in several parts of the world. Temperature fluctuations kill hundreds of thousands of people and affect the health of millions.

A report of the World Health Organization shows that climate changes generated by people against the Earth's climate have resulted in the death of over 150,000 people annually and the ill health of at least five million.

Researchers found that temperature fluctuations affect human health in several ways, including the spread of infectious diseases and the generation of heat waves and floods, propitious environments for the dissemination of diseases. The document contains concerning data and draws a warning: if in the following 10 years greenhouse gas emissions are not confined, climate change will get out of control and will cause major nature disequilibriums.

Rising temperatures will lead to an increase of extreme phenomena such as extreme heat, drought and violent storms.

In Europe, summers could become unbearably hot, especially in countries like Greece, Spain and Italy, while Great Britain and Northern Europe will experience dry summers and winters with abundant precipitation, accompanied by strong blizzards.

Although climate change impacts have made their presence felt in Romania, the state of health of the population, especially in urban areas being at minimum quotas, the possible causes of major environmental disasters are still not made aware.

The focus and balance of the environmental efforts depend on the local conditions, including resources, policies and individual actions and the community's unique characteristics. The concept of sustainable community has been applied to various aspects, such as urban spreading, redevelopment of built-up areas, economic development and growth, ecosystem management, agriculture, biodiversity, green buildings, water management and pollution prevention..

2. MODERNITY OF TRADITION

Many of these issues and other community concerns may be settled by addressing the traditional methods of our community, making the connection between architectural history and present.

An example of reference, both in terms of observance of the ecological architecture as well as related to sustainable development or the generation of energy from unconventional sources, is the traditional vernacular architecture and the technical equipment used in the past.

It is fascinating to notice how both folk architecture and the traditional technology workshops of old peoples who used traditional non-conventional energy sources have become over the centuries, through gradual evolution, true models of aesthetic harmony. There are considered remarkable the solutions of composition and spatial graduation of the built constructions, the special integration within the site and landscape, the often ingenious solutions used to achieve thermal adjustment and also the aesthetic-compositional end result.

All materials used were fully recyclable, without exception, most of them brought from the immediate vicinity of the site where they were found. Each form of relief corresponded with a certain archetypal model which in time had diversified. Depending on the spatial needs the model was generated mainly by environmental conditions (the frequency of rain and snow, minimum temperatures in winter and maximum temperatures in summer, dominant wind direction, existing materials in the area, etc.)

Another direction of development consisted in the folk technique and especially the workshops in which there were processed cereals and textiles. The ingenuity by which people have used water and wind power in order to ease the work related to the processing of raw materials generated a wide range of solutions that today we look upon with admiration.

3. ECOLOGICAL CURRENT PARALLES

The principles developed currently by the international trend "ecovillge" are based on the integration of spiritual and natural resources of each community by returning to the traditional habitat or by creating a new habitat in harmony with nature.That is why the idea of tradition can successfully blend with sustainable development.

Gaia Education is a term coined to embrace education initiatives, which may lead to the healing of Gaia. This is also behind the conception of the UN decade of education for Sustainability (2005-2015).How do we achieve sustainability? At first we must begin to create sustainable habitats or settlements and not look at single parts of the settlements separately. It is the whole structure or system, which is in need of restructuring. Ecovillages are such a whole systems approach. Educating

to become an Ecovillage designer is a new initiative in progress. The education will necessarily encompass all the 15 dimensions of an ecovillage with equal weight put on the ecological, social and spiritual dimensions. The education will take place in ecovillages or Living and learning centers where the immersion experience in a different lifestyle in itself is part of the

pedagogy. We link to similar educational endeavors around the globe. The sustainability circle is used as the organizing principle of books, articles, videos, which are relevant for the Gaia Education. In this way we hope to offer easy and free access for people all over the planet (speaking English) to important information. The articles and books will be updated periodically.

We try to have important new material here but not too much in order to keep things simple.

To enable integrated ecovillage designs to express the will of a future group of inhabitants, you need to learn a lot of skills, which are not found in any single education today. Ecovillage design is design of whole settlements, not just single houses. Munksøgaard in Denmark made a report with their experiences from three years of planning and building an ecovillage consisting of 5 clusters of 20 homes each and with 5 common houses. To get all the people having different skills to cooperate — architects, engineers, biologists, permaculture designers, farmers, gardeners, social workers, the people from local municipality, etc. was an enormous challenge. The group of the future inhabitants had to do all this while carrying on with their regular jobs for three years. Nobody in advance knew about facilitation and conflict resolution, which might have saved a lot of time. This also needs to be part of such an education. Munksøgaard is a good example of a newer mainstream ecovillage demonmstrating many ecovillage design principles.

Ecovillage design is a new dicipline, expressing the needs of the future for sustainable development and lifestyle. It has grown and been unfolding from below, in order for it to expand and fulfill the needs of society the time has come to formulate a standardized educational program that can be taught in ecovillages.

In a nutshell, L&L Centers:

- create local replicable models of sustainable community that provide people with a sense of belonging
- show people how to protect and restore nature
- honor indigenous people and keep them from becoming beggars on their own land
- protect rural life and create new urban models
- show how renewable energy and effective waste systems work
- create partnerships and give youth a new mandate
- provide integral lifestyles and offer experiential learning
- focus on food security and meaningful livelihood
- reflect the world’s great cultural, spiritual, and artistic diversity
- encourage a child-friendly world
- support local solutions to planetary problems because we live on One Earth

Defining the terms "ecovillage" and "sustainability" has become a central and constant topic of debate within GEN — the Global Ecovillage network. There is good reason to believe that this discussion will continue for years to come. The main question is whether a narrow ecological definition is desirable or whether a broader definition containing also social, cultural and spiritual dimensions is preferable. The narrow definition is seen in many both official and grass roots contexts and may make it easier at this time to get funding. The need for framework for education and self-audits as measures of how far we have come and where we go underscores this.

In order to contribute to this debate the following historical overview of the development of some of the visions, conceptualizations and auditing models for ecovillages may be useful.

4. TRADITIONAL TREASURY

At present day, for its better integration the history of the Romanian land, which offers evidence that the oldest settlements date back to the Paleolithic (Romanesti, Baile Herculane, Cosava, Visage, Dubova), bears witness that after all the vicissitudes of time and countless attacks and invasions, the geographic, historical and economic conditions have enabled the permanent

continuance of a stable form of life intrinsically linked to the preservation of "the village boundary“.

In relation to these conditions there have also been developed, in an ingenious manner, various inhabitance typologies, depending both on the geographic area or the natural framework, as well as on the political and social-economic factors. Since our country's grounds are greatly varied, starting from the Black Sea shore, cradle of the Dacian-Roman civilization and vein of Christianity, and continuing towards the hilly and mountainous area with Romanian medieval fortresses, this diversification is also reflected in the historically built treasury, both urban and traditional-folkish.

This is how, since the most ancient times, current notions of ecological or ecovillage development are reflected in the settlements of our country, in the so called vernacular architecture.

Within the same context there has to be mentioned what our predecessors thought on the notion of "inhabitance”. At present day, the notion of inhabitance is exclusively connected to a dwelling, a building where man withdraws mainly for recreation, for family and not for an activity. For this reason, the dwellings could as well be collective because they don’t differentiate much one from the other; in terms of function …the term is prosaic and common! Whether you live in a town or a village, the term is the same.

Whereas, in the tradition of the Romanian village, the notion of individual_home never existed...the Romanian peasant had his Household. This, besides its inherent purpose of dwelling (permanent shelter) had other purposes…directly connected to the occupation of the owner, and in direct connection with the provision of the daily living…either through agriculture or through a handicraft activity.

The house represents the most important building of the peasant’s household, being connected to one of the most pressing needs: the need for shelter. That is why the concern to solve the habitat conditions crosses the entire evolution of humanity, from the dawn of history until nowadays, being an issue as important as are those related to obtaining food or the manufacture of clothing.

As well, depending on the geographic regions of our country there have also been used construction materials, their preponderance in the constructions from a certain area providing details regarding the specific economic situation as well as data on the influence of adverse events occurred throughout history.

Generally, on the territory of our country, the map of materials and construction techniques would appear in the form of concentric rings, the center - Transilvania Plateau, being and area of wattle constructions, surrounded by a broad ring of wooden beam constructions, covering the inner and outer slopes of the Carpathian Mountains and extending also in the Intra-Carpathian and Peri-Carpathian hill areas, encircled in its turn by the outer ring of wattle construction and ending towards the country’s borders with the areas of earth architecture. Stone architecture areas have an island like configuration, being spread in all Romanian historical provinces. As a characteristic feature of the traditional Romanian architecture, we can notice the ability of the masters from ancient times who have successfully combined these ecologic construction materials and this coexistence of stone, wood, clay even within the structure of the same building.

Nowadays, if we also take from the treasury of folk architecture the construction techniques that have been tested for centuries, having a time-tested durability, and we apply, in parallel, ecovillage principles, which are, in most part, consistent with the traditional ones, all of this will lead to a far superior result, being supported by the experience of past generations.

For instance, meeting the use of some fully ecologic materials, included in the category of resources that are found in abundance in most areas of the country there may be brought to actuality, the buildings provided with clay walls, wattle walls that are resistant and provide good thermal insulation. This technique is the construction technique having the acknowledged name of Fachwerk, that is, a supporting wooden frame filled with various materials, ancient technique according to many ancient archaeological digs.

Caraoman, Delta Dunarii

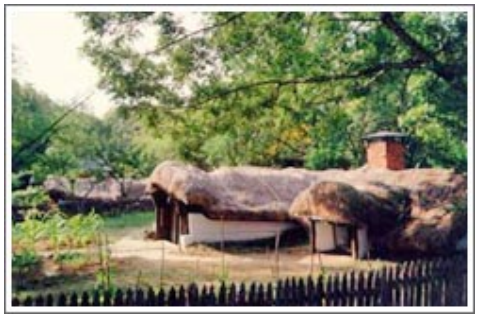
Another construction technique, Blokbau, with horizontal beam crowns dovetail joined at their ends, receives improvements on the territory of our country due to the bonding of wood walls with straw mixed clay, and the laying of this mix both on the exterior and the interior, thus improving thermal comfort.

The same purpose of binding material and good insulator is ascribed to clay combined with stonework. Stone is the foundation of the house, wood is its resistance structure, and clay-mud is both basic material as well as a good thermal insulator.

Fundu Moldovei, Suceava, XIX

Dragus, Brasov, XIX

We emphasize here, as a way of living green, the possibility of perpetuation of the semi-underground buildings or underground buildings, the so called earth huts, which are, currently, rediscovered in terms of form and function, having various advantages in favor of preserving the environment, but also by ensuring thermal equilibrium, facing well the considerable temperature differences between the summer - winter seasons.



Castranova, Dolj, XIX

Dumbraveni, Suceava, XIX

We also mention that the post-use of buildings having as a base such construction materials will provide a natural circuit in the future, without unfriendly consequences against nature.

5. CONCLUSIONS

This brief introductory information, prefaces the development of specialized extensive studies, both in the field of ecologic architecture as well as in the field of higher education engineering, all of which being integrated in the sustainable development of the areas of our country's territory, depending on the specific of the region, both as ecologic building materials and as adjustment by means of purpose to the socio-cultural and traditional conditions.

Folk buildings art combines both architectural aesthetic, site integration as well as the successful harmonization with the surrounding landscape. Romania by its folk tradition is a true open air museum, which still preserves, in most of the rural areas, living examples of the originality and perpetuity of the building techniques. If the principles of sustainability and sustainable development may be transmitted by tradition, then, their implementation will be faster, and the future generations will learn to preserve their history and at the same time enjoy a healthy and unpolluted environment.

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