

PSYCHOLOGICAL IMPACT OF REHABILITATION LANDSCAPE AFTERDISASTER USING ALTERNATIVE BUILDING SYSTEMS

IMPACTUL PSIHOLOGIC AL REABILITĂRII PEISAJULUI DUPĂ DEZASTRE PRIN FOLOSIREA UNOR SISTEME ALTERNATIVE PENTRU CONSTRUCȚII

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Abstract. *Alternative green building systems can be used for areas damaged by natural disasters, with an important psychological impact on affected population. As the high constructions, how destroyed landscape is gradually restored, has an important contribution to improving the mood of the population.*

Key words: natural disasters, affected populations, landscape recovery.

Rezumat. *Sistemele alternative pentru construcții ecologice pot fi folosite în cazul zonelor distruse de calamități naturale, având un impact psihologic important asupra populației sinistrate. Pe măsură ce se înalță construcțiile, modul în care peisajul distrus este, treptat, refăcut, are o contribuție importantă la îmbunătățirea stării de spirit a populației.*

Cuvinte cheie: dezastre naturale, populație sinistrată, reabilitarea peisajului.

INTRODUCTION

The paper will highlight aspects of the psychological effects of disasters on people and landscape, and also the effects of the reconstruction along with reconstruction of buildings destroyed, but using unconventional and ecological recovery systems of communities affected.

MATERIAL AND METHOD

Studies on the psychological impact of disasters on the population shows a wide range of symptoms from stress disorder to posttraumatic stress disorder (PTSD). PTSD occurs as a result of trauma and bring symptoms and reactions that interfere with human ability and the personal life of the professional. It is generally associated with painful memories and other forms of reliving the trauma.

Other manifestations of psychological imbalances products amid disasters are depression and anxiety. Anxiety, including PTSD, can lead to panic attacks, difficulty sleeping, difficulty concentrating, or physical sensations such as respiratory failure, chest pain or dizziness. Symptoms of depression include sadness, insomnia, feelings of guilt, lack of energy, difficulty concentrating. Anxiety tends to be characterized by the appearance of excessive worry while depression is characterized by a feeling of helplessness and lack of hope.

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The factors that give posttraumatic stress disorder related to disasters are caused by education, gender, race, and the existence of previous trauma. Although you can not necessarily predict the occurrence of such disorders due to a catastrophic event, when occurs it should be considered for such symptoms.

Studies have shown, surprisingly, another factor: people surveyed reported a decrease in social support, low sense of connection with others, a decrease in the belief that you can control what happens around and a decrease in optimism. Such social resources are extremely important for recovery after a disaster, contact friends and family can provide important support to psychological recovery. Damage of these social resources appears to be more common than psychological disorders (Phillips, 2009).

RESULTS AND DISCUSSIONS

Below, is presented some features of vegetation which are recommended to be the main factor for physical and psychological rehabilitation of territorial and human communities affected by passage through devastating events (natural disasters, accidents or environmental damage and mass distructions generated by wars) or only by management and unsustainable exploitation of natural and human resources in the area.

Among the main functions of vegetation in an ecosystem are outline the next:

- air purification function due to plant capacity to emanate oxygen, essential for life and absorption of carbon dioxide in the atmosphere, dust particles, pollutants or different volatile organic compounds, etc.;
- maintain humidity by the same process of photosynthesis discussed above;
- ionization of the atmosphere in the context of the presence of mirrors of water, rivers or seas;
- maintaining and restoring natural cycles and biomorfological soil structure;
- and not least aesthetic and recreational function both needed a refreshing and sustainable urban environment.

All these features of vegetation support the idea that nature is saving solution to many problems this century and millennium begining, just to have recognition and respect for the genius of nature and willingness to seek and implement solutions for sustainable development.

Harmonious integration of man and his actions with nature allows development of actual human society, without jeopardizing the existence of future generations. Almost always when it comes to reconstruction after disasters, material losses are taken into account at least consistent if not huge, so all those involved in the rescue, cleaning and reconstruction will require considerable resources of construction materials and technologies easy obtained and relatively easy to put into practice. Easiest would be to exploit the natural resources of building materials present in the surrounding affected area. Thus earth, wood, stone or other combinations of these materials can easily become grounds for

sustainable reconstruction in individual living in villages or urban periphery areas, especially if are involved also affected persons by concerning to appropriate the houses with creativity and individual effort. This involvement can be the bridge between despair and depression in disaster for the hope and optimism of creative man, started to carve a new life in a new home.

Certainly from the perspective of modern technology, there are many classic and modern construction solutions and more unconventional systems such as the use of construction or agricultural waste for new materials, how they studied at the Technical University of Iași, in a doctoral study (Pruteanu, 2011). Other conventional solutions would be related to the implementation of reconstruction prefabricated building systems, such as earth blocks or mud rolls (fig. 1), or soil with straw (fig. 2), or other mixtures of crushed material resulting from demolition (Minke, 2006).



Fig. 1 – Prefabricated blocks of land: a prefabricated industrial Bricks (above); b. handmade adobe (bottom left); c. handmade rolls (bottom right); (Minke, 2006)



Fig. 2 – Prefabricated blocks of earth with straw (Minke, 2006)

The landscape reconstruction is also practiced with plant species from plants nurseries, specially designed for this purpose (fig. 3).



Fig. 3 – Nursery trees and shrubs (Periland.ro)

We know that man is a holistic being and his harmonious birth and development is possible and absolutely inseparable from the presence of primary natural elements: sun light and heat, water, land with its wealth of minerals, which all together produce the miracle of plant life and animals. Consequently, when, from catastrophic events occur an imbalance in human symbiosis with nature, he suffers both physically and mentally, not to mention the social and economic sides strongly shaken at times. It must therefore be aware of the essential role it plays in the natural elements of human life and harmonization, especially since the first implementation phase of restoration and reconstruction of damaged areas, so that man may be in permanent contact with the primordial elements of life. Involving people affected in the reconstruction can be a plus not only saving workforce especially in recovering a sense of security, confidence and hope for their better.

CONCLUSIONS

In conclusion, it is remarkable that although the past decade there have been major technological advances, construction specialists and architects tend to reassess traditional building methods because these are more economical and friendlier to nature, especially in crisis situations when requires rapid reconstruction of areas destroyed by disasters. Involving people affected in the reconstruction, and rapid restoration of the natural state can promote recovery of post-trauma victims to recover confidence and feeling of security.

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