

ARCHITECTURAL STRATEGIES FOR CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

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Abstract

Street children and children with addictions represent a special category when we talk about educational programs or learning Environments. The design and the architecture of a building can influence the development of a child, and can be a positive factor in the process of education. Nowadays, the drugs are a real threat for children and young people, the number of teenagers with different types of addictions is increasing in an alarming way. If, until 1995, Romania was only a transition area for drug trafficking, nowadays Romanians are consumers of such substances. Another important fact is that the age of onset is growing younger and younger. Therefore, the main campaigns for drug prevention focuses mainly on elementary school children (grades II-IV) and Gymnasium students (grades V-VIII). Latest statistics indicate the age of 9-10 years as the age of onset of drug use.

This article presents the situation of the educational process for drug prevention with the aim of finding better solutions for the rehabilitation of such teenagers in need. With a focus on the importance of the design in the educational and rehabilitation process a project, for a rehabilitation centre in the west part of Romania near Timisoara, is presented. The aim of this article, which uses all the educational, psychological and architectural information, is to present the importance and the relevance of the environment in the rehabilitation and educational process for these teenagers. Willing to prove this theory, this paper presents the situation in Romania, and also a case study on an educational and rehabilitation centre for teenagers in Dumbrăvița, Timișoara, Romania. This type of design, which seeks to accommodate the spiritual needs of these young people, creates a space with poetic, psychological and educational connotations.

Keywords: Children in need, addictions, learning environment, environmental psychology, drug prevention.

1 INTRODUCTION

Until 1995, the problem of drug addiction was a minor one in Romania, however, nowadays, according to the latest research and polls carried out in November-December 2012, 10% of Romanian teenagers regularly consume drugs. The city of Timișoara shamefully occupies one of the top three positions among Romanian's cities, when the issue of drug addiction is concerned.

Acknowledging the importance of investing in children, as they represent our future, programs were implemented all over the world in order to understand, prevent and rehabilitate teenagers with addiction issues. Unfortunately, no rehabilitation center for children with this type of problems existed in Romania in

2012. (Teenage Drug Use; Consortium for Street Children, 2012)

The aim of this article is to present a case study regarding the situation of addiction in Romania, with a focus on Timiș County, and to analyze how the appearance of a new category of children with problem simplifies a new educational approach and the necessity of creating a new architectural framework. A project is presented for a detoxification and rehabilitation center dedicated to teenagers with addiction problems. The project belongs to Arch. Amalia Boeriu and aims to accommodate the spiritual needs of such young people, by creating a space with poetic, psychological and educational connotations. The rehabilitation center is situated in Dumbrăvița, in the proximity of Timisoara, in the Western part of the country. (Boeriu, 2013)

1.1 Understanding Addiction

It is important to understand the phenomenon that we attempt to cure, in order to create a proper environment where we can rehabilitate and reeducate the will of the teenagers. An appropriate architectural design can be created only after detailed research, and following the understanding of the specific problems encountered by an addicted person. An addict had other needs and other sensitivities, as compared to a healthy person, and the space dedicated to such people must be proper for healing.

During the process of drugs consuming, a person passes through to different stages, beginning with the habit of consuming from time to time, to the habit of taking drugs regularly, and, in the end, abuse and addiction.

The behavior of a drug addicted person is characterized by ambivalence, also found at a psychopathological level as the expression of a neurobiological conflict. In other words, the pressing need is in disagreement with their will, and one of the reasons why, in many cases, the first desire is stronger, is the different nature of these two conflicting impulses, the first one being related to the subcortical brain activity, resembling the instinctive type responses that short-circuits the process of reasoning. (Price-Mitchell, 2012; Luthar, 2003)

1.2 Methods of treating the addiction of teenagers

In order to treat children's and teenagers' drugs addiction, an approach is required that takes into consideration their special needs and the factor of age. That is why it is necessary to take into consideration many other determining factors, by trying to balance the therapy methods with the characteristics of the patient's age, by creating a program which combines therapy, education, life experience and the need to play in an environment without the presence of vice. The detoxification and rehabilitation programs usually take place over an extended period of time, and this special center must facilitate the access to education and a proper development of the child or the teenager.

One can speak of two types of causes that lead to drug abuse, the first one as a mechanism to cope with reality, while the second one is of a social nature. In the first case, the effect of drugs is perceived as a major source of relief from the painful memories or the stressful situation. Family conflicts, divorce, violence or victimization, poor performance at school, are all reasons for teenagers to try to avoid reality. Moreover, the family's attitude towards alcohol or drugs may influence the percent of risk for children. (Adolescent drug rehab; Pryor, 2010)

The symptoms of teenagers with drugs problems are difficult to recognize, because they similar with the teenagers' general behavior. Signs can be: a neglected look, marks on hands or feet, assuming foolish risks, emotional instability, no interest in different extra-school activities, or low performance at school. (Whitlock, 2010; Price-Mitchell, 2012)

All over the world, institutions, the church, different medical research centers take action and create special centers for the detoxification, rehabilitation and, afterwards, the reintegration of teenagers with such problems. That is why it is important to create special educational and rehabilitation programs also in Romania, where the situation is getting worse every day. According to the research made in 2003 in the high school environment in Timisoara, 25.3 % of students admitted that they had friends who consumed drugs, 11.9 % had colleagues who consumed drugs, and 0.9 % had members of their own family who were drugs consumers. (A research made on Romanian teenagers, 2002) It is important to pay special attention to children and teenagers, because such behavior, with potential risk, may first appear between the age of 13 and 15. (Rubin, 2001)

1.3 The Role of Art and Architecture in the Process of Rehabilitation

Nowadays, numerous studies there have been carried out regarding the effect of the built environment on the human psychology. Any institution specialized in the assistance of patients with different types of

addiction must strictly observe and take into consideration these requirements. A recent article published by architect Roger S. Ulrich presents the role of the art and architecture in the designing process of a medical space, and shows how a building where the noise, the lack of private space and the lack of communication determined by isolation can intensify the patient's trauma. Creating an environment that reduces the noise and cluster, allowing for private spaces and a sense of control, according to Roger S. Ulrich, is a method of diminishing the patient's trauma. As a strategy for creating intimacy, it is recommended to design secluded places alcoves, couches or benches, as for a better control of noise and congestion it is recommended to reduce the scale of the building and to limitate the number of persons in order to create some intimate and peaceful gardens. In order to ensure the sense of control, spaces must be flexible and residents should be able to personalize their own space (for example, by creating their own furniture), the public space should be transparent, allowing the resident to join or not the group, and different functions should be properly marked in order to assure the spatial sense and to facilitate orientation.

Art as a method of healing is controversial, due to its dual origin (in art and psychotherapy) and is defined in various ways, focusing either on the artistic and creative process as therapy, or simply on the therapy. The psychoanalytic approach is the incipient form of art psychotherapy, involving a process of interaction between the therapist and the patient, the therapist's main role being to interpret the symbolic expression of the patient and to guide the patient through the process of self-interpretation. Among the latest trends is the following approach which doesn't require the interpretation as a therapy component: individual centered, cognitive, behavioral, Gestalt, narrative, family, etc. The sources of art involve a multitude of attitudes (creativity, emotional conflicts reconciliation, facilitating self-knowledge, personal growth). (Boeriu, 2013; Povian, 2015; Kopko,2013)

2 DETOXIFICATION AND REHABILITATION CENTRE FOR TEENAGERS, DUMBRĂVIȚA, TIMIȘ COUNTY, ROMANIA

The aim of this article is to identify the main problems of children with addiction problems in Romania, and to analyze the importance of creating new educational and rehabilitation programs in order to respect children's rights, to give every child the opportunity to develop properly and to prevent the catastrophic situation of becoming a street child. The appearance of new problems leads to the appearance of new educational or rehabilitation programs, which in its turn leads to the appearance of new architectural programs, and to special concepts and designs dedicated to children in need. In order to identify the main educational and architectural issues related to the new type of centers dedicated to teenagers with addiction problems, this article presents the project, the justification and the results of a proposed center in Dumbrăvița, designed by a young architect from Timisoara, namely Amalia Boeriu.

2.1 Methods and Means of Investigation

This paper is based on data gathered from local authorities, and all the images, the architectural designs and the information about the designing process were made available by the architect who designed the center, Amalia Boeriu. The project was designed as a Master thesis developed at the Faculty of Architecture and Urbanism, within the "Politehnica" University of Timisoara. (Boeriu, 2013) All the information about the situation of teenagers in need in Romania is based on data from studies conducted by the Department for Child Protection in Timiș County, Romania, studies conducted by the EMCDDA, and the EU Youth Report. (EMCDDA, 2011; Abraham, 2003)

This study mainly uses the direct method approach, offering the possibility to see the whole picture. It was considered as the most appropriate method in order to understand the feelings and perceptions of the children to whom such center is dedicated.

2.2 The Justification for a new educational and rehabilitation type of program

The relevance of the problem is given by studies conducted among the young people in the United States, or those of the European organization EMDECU. The American study sample included subjects aged between 12 and 17 years, in 2009 (National Survey on Drug and Health). The report indicates a percentage of 10% of those surveyed as dependent, with 8.8% participating drunkenness, 7.3 had consumed marijuana, 3.1% had used drugs for non-medical reasons, 1% had tried different substances which are inhaled, 0.9% had used hallucinogens (LSD) and 0.3% cocaine.

According to the EMDECU report, the percentage of teenagers who consume drugs in Romania has raised from 3.5% in 2005/2006 to 9% in 2009/2010, and even higher in the present. (EU Youth Report, 2016)

3 ARCHITECTURAL GUIDELINES IN DESIGNING FOR TEENAGERS WITH ADDICTION PROBLEMS

The project is composed of three functional blocks: the detoxification center, which satisfies the health and psychological needs; the rehabilitation center, built in order to assure a safe environment and the opportunity for teenagers to reintegrate, and the third block, which contains spaces to sustain the well functioning of the first two blocks. Thus, the first block- the detoxification center - is designed so as to serve 25 patients and contains 5 wards, a living room, a treatment room, a storage, a room for doctors and one for nurses, an emergency room, the reception area and the toilets. If the first block is dedicated mainly to physical health, the second block- the rehabilitation center - requires different types of spaces as: an area for art therapy and workshops, a therapy and counseling area, a space dedicated to interaction, a dining area, a kinesiology and exercise area, a gym, a library, classrooms, a multifunctional room, a chapel, accommodation, and a reception area. The spaces that can simultaneously serve the first two blocks are: the kitchen with the storage and the technical space, the administrative spaces, the chapel, the therapy and counseling area.



Fig. 1.a) Final project perspectives; b) The concept of a home far away from home- the accommodation area. (Boeriu, 2013)

The proposed medical center (the rehabilitation center) can be assimilated to a very small clinic designed as to serve the rest of the center and the teenagers who are in process of rehabilitation. The detoxification area was designed so as to be in the proximity of a section of Neuropsychiatric care unit with 25 beds. The rehabilitation center was created by taking into consideration latest multidisciplinary studies (involving architects, designers, psychologists, and doctors) carried out in order to create an environment as favorable as possible for the healing process.

The role of art in the process of rehabilitation is seen as essential. Patients will feel inspired, considering that the building triggers the healing process, because it creates a link with the external environment. It is a source of connection with humanity, perceived as a form of compassion, and closeness of the patient to the kindness of the world. It is recommended to pay special attention with regard to the selection of the particular type of art, as abstract art is not so indicated as therapy.

The **lighting** should be as natural as possible, because it involves the connection between the interior and the exterior space. Recent studies have showed the positive effect of day lighting on the patient's psychic, which is why it is important to pay special attention to the building orientation, to the window design and the glass surfaces. All these lighting elements should be designed in harmony with the function of the space. Another essential architectural factor in the process of rehabilitation and education for teenagers with addiction problems are **the colors**. The chromatic of a space has deep psychological implications. Different colors create different sensations, from generosity and freedom to captivity, suffocation and loneliness. The chromatic of a building is chosen according to the cultural level and age target of the residents. Warm colors are used for spaces that should suggest comfort and warmth, while cold colors are used for relaxing and rest areas.

Materials and texture should be chosen carefully in order to absorb noise and contribute to the simplicity of the space, without making it cold and impersonal. A space which is easy to understand has a calming effect on the resident, and a small palette of textures prevents confusion, anxiety and discomfort. The chosen **furniture** and the way we design and arrange it gives to the resident a certain feeling of personalization of

the space, triggering better interaction between teenagers and also between teenagers and the staff (medical, psychologists and teachers). The custom design of the furniture can assign a domestic character to the space, ensuring a higher degree of comfort, in terms of education and emotions.

Taking into consideration the long period of time that teenagers have to spend far away from home, a new concept of home is created in the studied center. In order to give to the sleeping area a familiar design, the architect proposes, the creation of a little village composed of small volumes representing the teenagers bedrooms. (Fig.1.)

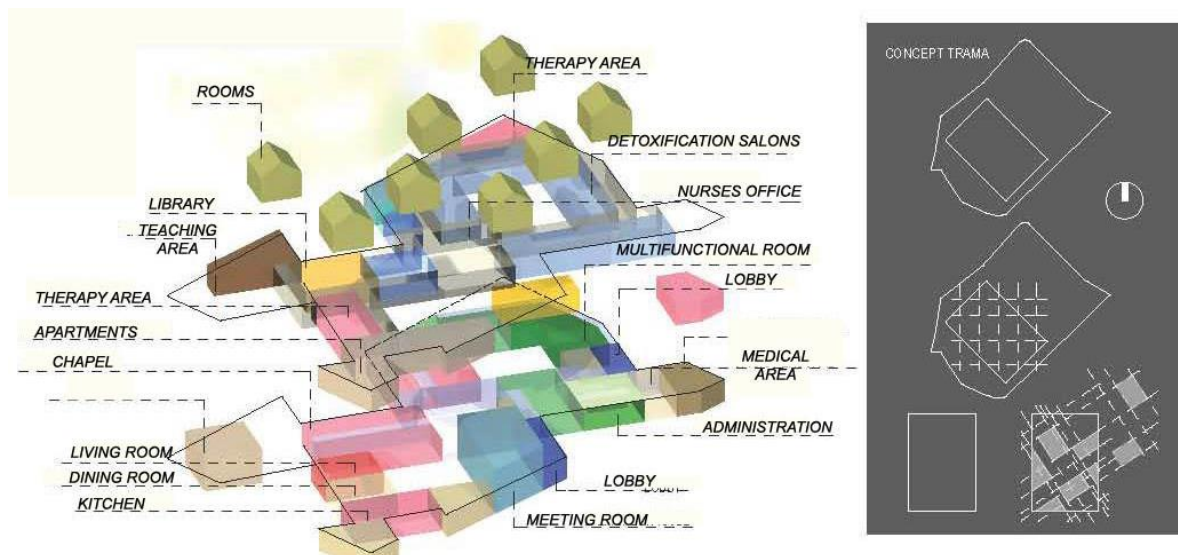


Fig. 2.a) Functional diagram; b) The building concept sketch. (Boeriu, 2013)

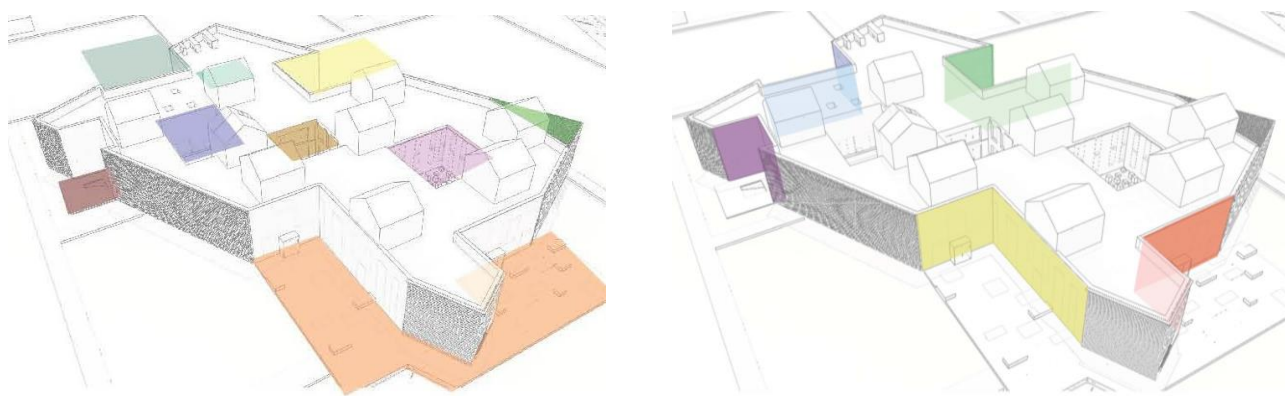


Fig. 3.a) Interior gardens- conceptual drawings; b) Conceptual drawings- the chromatic of the building and the functionality. (Boeriu, 2013)

Other important elements for the good functioning of the center are: the chapel- which can provide emotional and spiritual support to confused teenagers; the library- this space should stimulate the imagination and the personality of teenagers, being used as a space for meditation and intellectual development; the rehabilitation ward designed as a teenager's room. Each resident should have a space of their own and a common space where they can interact. The relationship with the nature is very important, therefore, the rehabilitation room and the educational spaces must open towards various interior gardens, so as to create a link to the harmony of nature in order to achieve interior harmony. (Fig.2. Fig.3.)

The proposed center also has a recreation space and an area dedicated to sport activities. The entire site can be designed as a trail for recreation, linking different types of recreational areas (a football field, a tennis field, a park, a playground).

The objective of this project located in Dumbrăvița is to create an educational and recreational environment for more than 50 teenagers with different types of addictions. Because the rehabilitation process usually lasts for a longer period, the center includes the educational facility, in order to assure the continuation of their

studies. The article presents the main architectural guidelines for the design process related to this type of center, and the main architectural elements which can determine the success of the rehabilitation process.

4 CONCLUSION

By approaching the problem of teenagers with different types of addiction from an educational, medical, psychological, and architectural point of view, one can realize the importance of harmonizing several factors like: patterns, colors, light, textures, and the positive distraction of attention by different frameworks that encourage a motivating experience for the patient. The project presented in this article is an example of how art and architecture may influence the educational and rehabilitation processes, and how design elements may develop into determining factors for the success of the project.

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