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## **Case study: Revitalization process of a crying building with creativity**

Nagy Zsolt<sup>1,2</sup>, Antoci Adrian<sup>3</sup>, Ilinca Tulvan<sup>2</sup>, Andra Pocola<sup>1,2</sup>, Sánduly Annabella<sup>1,2</sup>

<sup>1</sup> Technical University of Cluj Napoca, Gh. Barițiu Str., No. 25, Cluj-Napoca, Romania, Zsolt.nagy@dst.utcluj.ro

<sup>2</sup> Gordias Srl, Carpați Str., No. 1, Cluj-Napoca, Romania, office@gordias.ro

<sup>3</sup> Urban Proiect SRL, Suceava, Romania, antociadrian@yahoo.com

**Summary:** *Why we need urban regeneration? We should start also with this question. And we should continue with keywords which define the actual problems, we can daily see: block of flats without any renovation since they exist, degraded historical centers, abandoned industrial areas, not properly maintained public spaces, weak infrastructure, unsatisfactory urban services, inefficient public transportation, less and less green areas which are close to disappear totally [1]. And the list should be continued. But for what serves a long list of problems, without possible solutions? The article describes a solution. A concept developed by a team of engineers and one architect, giving a solution in a complex problem which is far to be defined as urban regeneration. The described case study presents the revitalization process of an unused building for several years, which degrading also the urban visual space. Seeing only the visual impact in pictures, the reader will realize the hidden potential of revitalization, which needed only team working, creativity, enthusiasm and some individual effort of the team members.*

**Keywords:** urban regeneration, revitalization, reconversion, creativity; brick house buildings.

### **1. Introduction**

The *Crying Houses* is known as an initiative of young architect students, who's idea was to make a list of forgotten/damaged buildings in Bucharest and then to educate the citizens for change. The main idea of this project was to urge people for care: since we look to a house, we build them and we live in it, architecture is a subject which implicates all the citizens. If we judge the public space from this perspective, in which we exist in everyday life, we can find unfinished, damaged buildings, which looks like they are totally forgotten by everybody. There are several reasons, why such buildings damages the urban outlook, but probably financial or ownership reasons will won the first places. This case study describes the successful transformation of an unused building into a *Smiling House*.



Figure 1: a. View of the initial building, b. The building during transformation

### **2. Architectural aspects**

From architectural point of view the challenge was to reconvert a non-used and unfinished building (almost a ruin – see Figure 1a.) into a living space for a family with modern life style. To satisfy that requirements, it was necessary for a radical functional re-organization of the living spaces and also the reconfiguration of the whole building volume. According to these requirements, all the spaces were grouped around the staircase, reducing in that way the access length and giving a dynamic for the whole house trough the interpenetration of the living spaces. The space fluidity is ensured by the view control and the perspectives which are opened for the user, crossing the way from the main entrance to the terrace roof. The space organization using the *raumplan* of Adolf Loss [2] needed demolition works, refurbishments and even new volumes. At the interior side the natural light flood the interior spaces and the sun movement on the sky creates interesting shadow games. The orientation of the interior spaces according to the cardinal points but also the opening of the interior look to the *Hagigadar* monastery, connect the house and their users with the nature and the history of the neighbor places.

### 3. Structural engineering aspects

The existing building structure required a series of interventions. On one side – the missing and adequate conservation works, which was amplified by execution defects, on the other side the required structural modification, in order to comply with the architectural space (see Figure 2). To repair the identified damages in the brick structure, SIKA materials were used. The transformed 3D volume of the building was obtained with additional steel structures, fixed with chemical anchors in the brick structure and the concrete belts.

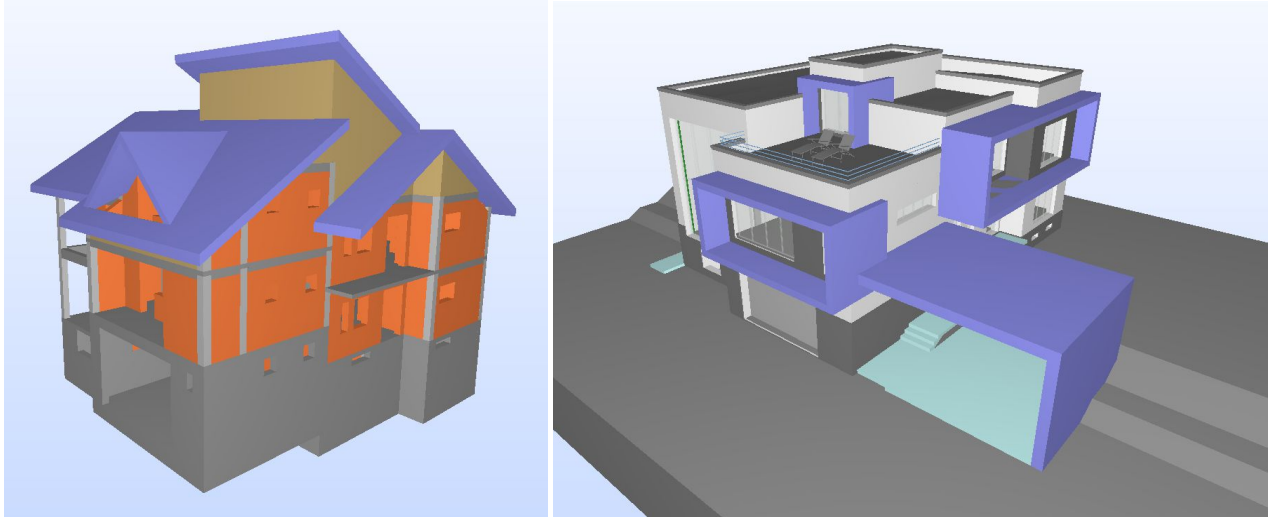


Figure 2: a. Initial 3D model of the building, b. The transformation concept



Figure 3: a. 3D rendered model of the building, b. The real transformed building

### 4. Conclusions

The case study describes a successful revitalization process of an unused building which finally was reconnected in the urban tissue. Even the example is far to be an urban regeneration, it emphasize the hidden potential of this concept. The whole process of the reintegration of an unused building it was not only an economic or functional problem, but also a professional one. The presented example is a singular one, but to initiate a global changing process, we need good examples to build our own way to obtain spectacular results.

### 5. References

- [1] Anca Ginavar, Ileana Blum, Vera Marin, Erika Popliceanu, Oana Gherghinescu, Mihaela Vrabete, Gabriela Frentz, *Ghid informativ privind regenerarea urbană, principii și practici europene*, Ministerul Dezvoltării, Lucrărilor Publice și Locuințelor (2007)
- [2] Cynthia Jara, *Adolf Loos's Raumplan Theory*, Journal of Architectural Education, Volume 48, 1995 - Issue 3 , doi: 10.1080/10464883.1995.10734640 (2013)