sciendo

Ybl Journal of Built Environment, Volume 9. Issue 1. (2024)
10.2478/jbe-2024-0010

REUSE THE SPACE

SMALL SCALE INTERVENTIONS IN DEBRECEN AS A METHOD OF SUSTAINABILITY

Tamás Szentirmai

Department of Architecture, University of Debrecen, Debrecen, Hungary
szentirmai@eng.unideb.hu

Abstract: *Architecture - both urban and building scale - always strongly reflects the current social and cultural context. This is of course no different today: the topics that currently define our world - climate change, sustainability, environmental protection, housing poverty... - strongly influence design, sometimes with the stringency of legislation, sometimes as a matter of conscience. Within the framework of the architectural education in Debrecen - student assignments and departmental projects - we often seek answers to the question of what other professional approaches can be found, which could even show an alternative to the current engineering and technological answers that are so intensively present in everyday life. This is one of the ways we think about sustainability, where our primary objective is to show the hidden values and reserves of existing places - buildings, urban spaces - and how currently under-used situations can serve new functional needs with small-scale interventions without significant investment.*

Keywords: *sustainability, small-scale intervention, reuse*

1. NOT TO BUILD IS MORE SUSTAINABLE THAN TO BUILD

In architecture - partly because of its interdisciplinary and complex nature - there are many aspects to a given problem. In recent times, a fundamentally technical approach has become prevalent, where the problem is seen as a technical issue and solved through technological development. This approach is reinforced by the role of the construction industry in the economy and society today. For the developers and manufacturers of building materials, the construction companies and the investors, it is more appropriate to have a well-planned, predictable engineering solution than other approaches that require more complex preparation. As a consequence, there has been a lot of technical development over the past decades, both in building materials, building construction and building operation and maintenance. This is no different for sustainability. The concept, so often heard in today's architecture and construction industry, is primarily a technological response rather than a complex one requiring a change of attitude.

The high-tech, complex sustainability project of New Monte Rosa Hut [1] (Zermatt Switzerland, 2009), designed by Bearth & Deplazes Architekten, illustrates this technical approach. The design was preceded by years of university research and incorporates numerous new high-tech solutions throughout the life cycle of the building. The key words were self-sufficiency and zero-energy. This type of high-tech solution is suitable for unique situations such as the 2883 m altitude of the Alps, but is not a generic example for more traditional, large-scale architectural interventions.

This is particularly true in Hungary, where the construction industry is not technically or financially capable of carrying out this type of project. In this situation, higher education in the field of architecture has a key role. Autonomous thinking independent of market expectations, free experimentation and research opportunities can be important contributions to alternative directions of development.

The architectural school in Debrecen, partly because of its geographical position, is very much concerned with the existing architectural assets of the city and the surrounding area. Because of the economic and cultural environment of the region the focus is increasingly on the existing built environment for a given architectural task. There are many arguments in favour of using what is already there, adapting it to new requirements rather than creating something new. It was not a conscious decision, but finally we started to work with a different approach to sustainability.

Not to build is more sustainable than to build.

This approach fits in well with international trends, which perhaps after the 2008 crisis started to focus more intensively [2] on the reuse of the built environment, both on a small and large scale. An alternative approach to sustainability, alongside an engineering approach, is becoming increasingly prominent, as illustrated by the 10 principles [3] of "The Copenhagen Lessons", formulated at this year's UIA World Congress of Architects in Copenhagen.

Today we are consciously looking for ways to use the existing built environment and communicate this to society - the clients. Projects can be grouped around three main categories:

- find and show the hidden values
- reuse hidden values
- exploiting underused situations

1.1. *Find and show the hidden values*

A small number of situations can be regarded as clear-cut, where the technical condition of the existing built environment and its social acceptability make its reuse a natural choice. In the majority of cases, values and reserves are hidden, and finding and revealing them is part of the task.

Two student workshops in the framework of the Triplex Erasmus+ [4] three-year international project, in cooperation with several universities, have been devoted to this topic. In the case of the former mining lakes near Jimbolia, Romania, we looked for small unique situations and hidden values in the natural environment, while in the case of the huge building of a former roof tile factory in Kikinda, Serbia, we looked for small unique situations and hidden values in the quite unique built environment. The aim of the project was to reveal and show these values, these reserves.

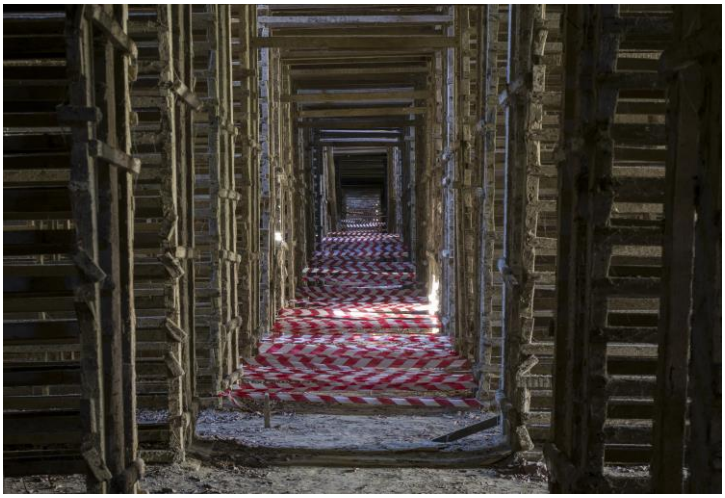

Figure 1 Drying ramp - site specific installation, Kikinda, Serbia, 2021. Creators: Dávid Kozma, Fanni Balázs-Kercsó, Balázs Fleischer, Kincső Jakab. Photo: Tamás Szentirmai

During online semester cause of covid, students had to make small interventions, installations around their homes. The small-scale interventions had to focus on space. One of our students, Helena found a small green space next to her house, which was interesting because it was inaccessible due to its height of about 1 metre. During her intervention, she collected fallen leaves from the area and created a geometric installation, drawing attention to the importance of the small natural space.

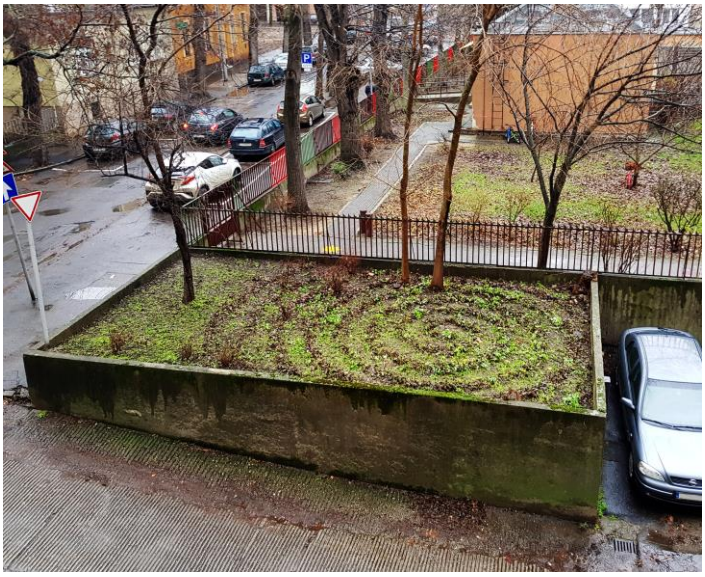

Figure 2 Diverse continuity - site specific installation, Debrecen, Hungary, 2020. Creator: Heléna Briz. Photo: Heléna Briz

1.2. *Reuse hidden values*

The use of existing values means continuity, where the existing is used not only as a built environment, but also in its historical and social context.

In Debrecen, the tanner workshops once formed a coherent neighbourhood within the city, but today only one building remains of the hundreds of workshops. For decades, the building's courtyard drying workshop building was isolated from the street and in a bad technical condition, until it was discovered around 10 years ago by us. After much preparation, and with the help of students, we designed a new life for it, an architectural workshop space and community space to match the former workshop usage. Reflecting on the architectural values of the building, we reimagined the former industrial building with small interventions, continuing the existing. [5]

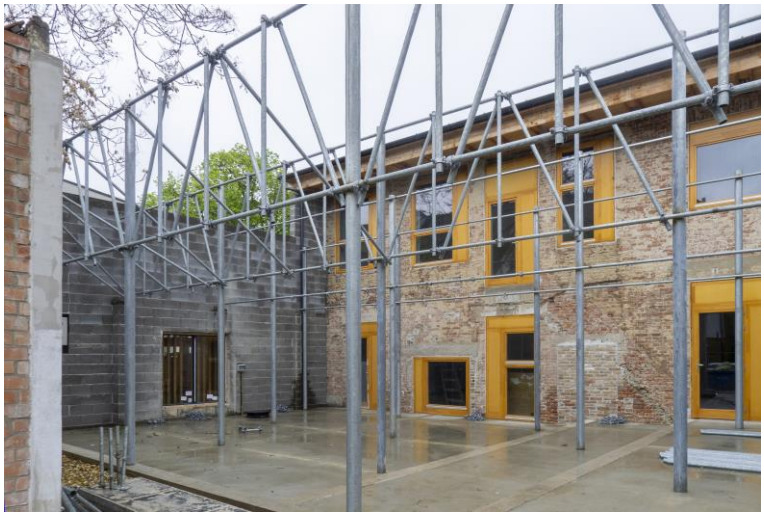

Figure 3 Drying workshop, under construction - refurbishment of the old workshop building. Department of Architecture UD. Photo: Tamás Szentirmai

1.3. *Exploiting underused situations*

In many cases, it seems easier to replace an underused built environment with a new one to meet new functional requirements, while there are many opportunities to add new functions to underused spaces.

The Faculty of Engineering building is a standard education building from the 1960s. Its original design is now functionally obsolete, significantly underused and underutilised. The students' task was to find unused, hidden potential in the building's interior spaces and to create new functional space with small, furniture-scale interventions. The student designs that were produced convinced the faculty management and in some cases further ideas were implemented.

Figure 4 Faculty building - small scale interior interventions. Department of Architecture UD.
Photo: Tamás Szentirmai

The creation of a museum shop in the MODEM museum in Debrecen was a new functional need. Our department was invited to develop the concept and we are working on the topic in a student workshop. Our idea was to create simple furniture from corrugated cardboard for underutilised spaces, which could meet the requirements in a flexible and mobile way.

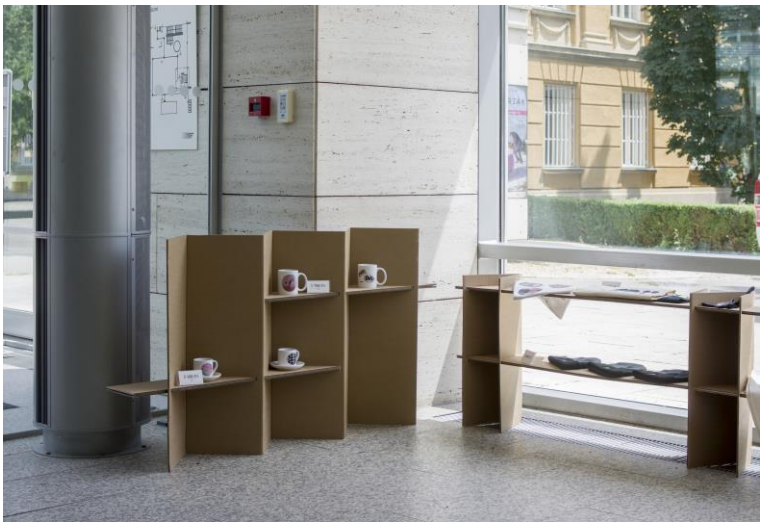

Figure 5 Museum shop - small scale interior interventions. Department of Architecture UD.
Photo: Tamás Szentirmai

1.4. *Conclusions*

Small scale interventions that work intensively with a given space, exploiting its values and making use of its reserves, can be a real solution to the problem of sustainability in interiors, at building scale and in urban contexts as well. In addition to the economic benefits, the social benefits are also significant, as they allow the existing, well-known built environment, linked to the identity of the place, to be maintained and the attachment of future users to be strengthened.

REFERENCES

[1] **NEMETSCHEK VECTORWORKS,** Case Study CH1: Monte Rosa Hut: Sustainable Lodging in the Alps, Columbia: Nemetschek Vectorworks, Inc., 2011.
[2] **HERWIJNEN, M.,** POLICY BRIEF, Reuse of spaces and buildings, Luxembourg, ESPON EGTC, 2020
[3] https://uia2023cph.org
[4] https://triplex-confinium.eu
[5] https://epiteszforum.hu/szarito-muhely--a-debreceni-egyetem-epiteszhallgatoinak-uj-inkubatorhaza