

## Summaries

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### SPATIAL POTENTIAL OF MIDDLE-SIZED TOWNS IN SLOVAKIA: LOST SPACES OF HUMENNÉ, LEVICE AND TOPOĽČANY

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*Keywords: intensification, lost space, urban structure, development sites, urban revitalization*

Nowadays, the biggest challenge of urban planners is coping with the climate change and applying the principles of sustainability in urban planning, such as compact city concept and inner urban development. Since 1989, Slovak towns and cities have undergone significant expansion across built-up area boundaries, at the expense of agricultural land. New development areas can be characterized by low-density and high demands on transport and technical infrastructure. As a result, even smaller towns now have disrupted urban fabric with gaps that need to be identified and filled in. Can intensification within build-up areas be a better alternative than the current urban sprawl into the countryside? and “Is it true that most lost spaces are located in the centre of cities?”

The first author to write about the issue of lost spaces is Roger Trancik, who has defined the term lost spaces, their causes and how the urban space should be redesigned. Kevin Lynch and Stephen Carr have discussed the wastelands as places on the margins, out of sight and out of mind. Catalan architect Ignasi de Solà-Morales uses the term *terrain vague* to describe the lost spaces that have been reclaimed by nature. Czech architect and urban designer A. B. Háblová calls these places “nonplaces” of cities and divides them into categories of lost spaces, landfills, transit, temporary and virtual spaces. French ethnologist and anthropologist, Marc Augé uses the term *non-places* (with a dash) to describe transit places where people only pass by.

The lost spaces emerged in Europe and North America in the 1950s and 1960s, as a result of growing dependence on automobiles, combined with designing open spaces, dividing cities into functional zones, reluctance to take responsibility for public spaces and closing of industrial parks. In Slovakia, the reconstruction of towns and cities has been implemented through demolition of old town houses and the construction of modern shopping malls, hospitals, schools, and low-density housing estates and industrial parks without a thought-out urban concept. After the privatization of former state companies, the production decreased and many factories were closed in the following decade.

The study aims to evaluate the spatial potential of inner towns and to determine the extent of buildable lost spaces within the built-up area and compare it to the development outside of built-up areas as proposed in master plans. Hypotheses and analyses are applied in the case study of three medium-sized Slovak towns – Humenné, Levice and Topoľčany, with the population of 20,001 to 35,000. The lost spaces were identified with the use of an orthophoto map and cadastral maps available through free map services (OCG) of the Geoportál GKÚ. Freeware program QGIS, using shapefiles and attribute tables, was used for the spatial analysis. Data were analysed in Microsoft Excel using Pivot Tables. The outcome of the analysis is presented in schemes and tables.

It was necessary to define basic terms used frequently in the study, such as built-up area boundary, actual built-up area boundary, size of built-up area and size of actual built-up area. The location of lost spaces within towns has been determined in three urban zones: the town centre, the inner town and the suburbs. Lost spaces are described using a multitude of terms. In this study we are interested in buildable lost spaces: urban fallows, vacant lots, residential green spaces, public amenities green spaces and industrial estate green spaces. The last term used in the study are development sites designed in masterplans.

The research shows that there is certain spatial potential in middle-sized towns in Slovakia, but is not used appropriately. The first hypothesis was not confirmed for the town of Humenné, despite the large potential of more than  $\frac{3}{4}$  of proposed development sites. On the contrary, the spatial potential of Levice and Topoľčany is even larger compared to the development sites. The second hypothesis was not confirmed in any of the towns, because the locations of lost spaces are often evenly spaced. The inability to confirm the hypothesis can be caused by multiple factors concerning both the town itself and its masterplan, such as its economic potential, the time and methods of masterplan elaboration that are often inconsistent. Unfortunately, emphasis is seldom placed on the vacant land suitable for development and recycling in the urban area of towns.

On the one hand, lost spaces are a problem for towns and cities, but on the other hand, they also comprise the potential for further development. They are places for implementation of urban revitalization, such as new constructions or green spaces. It is essential to find the optimal rate of intensification and expansion of urban structure, which might vary and be specific to each town or city. It is crucial to realize that towns and cities are living organisms, continually evolving, and it is neither possible nor desirable to reach full density of urban structure. A certain form of "feeling lost" in space gives cities an identity and space for growth, but the excess of lost spaces shatters the city into disorganized chaos. What ratio of the lost spaces is ideal or universal for all existing cities and towns and does it exist at all? Exploring and searching for the good ratio between built-up area and open space is the key to urban structure renewal.

## **RECYCLING AS AN INSPIRATION FOR ARCHITECTURE**

**Matúš Kiaček**

*Keywords: recycling, conversion, reuse, sustainability, ideational, values, preservation*

The presented article was originally written as the essay portion of the external Second State Examination on Theory and Methodology of Urban Design at the Faculty of Architecture and Design of Slovak University of Technology in Bratislava. Its content was on the theme of recycling and its influence, or rather its inspiration for architecture. The main aim of the essay was to approach the inspiration of recycling at different levels of understanding, in order to point out that it is not just a matter of reuse of construction waste and material, as it is usually understood, but rather a much broader and appealing architectural problematic. The essay itself is a combination of ideational frameworks reflecting the author's point of view on the theme, supported by relevant sources and respected authors, and a partial comparison of different theories and their outcomes. The essay was not intended to bring forward new and revolutionary ideas, but instead to intimate the great inspirational potential of recycling and its often underestimated or overlooked significance.

By way of introduction, multiple meanings of the word recycling exist, perceived variously in their relation to architecture. The aim has been to prove that recycling consists not only of the technological process of processing waste material into reusable material in construction, as is commonly held, but comprises a much broader level of meaning. Recycling is inspirational not just through the use of recycled material, but even more through re-processing the architecture – by its own conversion – and through taking over the architectural form and some of its elements; and perhaps above all through taking over and developing some important and inspiring idea and implementing all this into a new architectural con-

cept. It may be claimed that the inspiration in recycling consists of a belief in the importance of preserving values. However, these values are not limited to ecological and economic terms. They are as well aesthetic, cultural and social, and generally ideological and ideational.

As has been mentioned, the most common understanding of recycling is related to material recycling, which however ought not to be perceived just as reusing construction waste in the building process. For architects, it is much more inspirational to recycle/reuse material in order to reflect a deeper ideational intent, the bearing motif of the architectural concept. For instance, having been reconstructed, parts of a historical building are rebuilt from the original material in order to establish a connection with the building's history.

The second inspiration in architectural recycling is reconstruction and conversion, where we try simultaneously to preserve the identity of the building, its materiality and ideational value, while also looking to whatever the environmental and distinctive motifs are, based on objective or personal requirements. Here all the perceptions of recycling are in focus, and therefore such activity may be considered most inspirational. On the other hand, achieving harmonization of all the mentioned motifs is often believed to be so difficult that not a few architects and developers prefer demolition to any architectural intervention. However, it would be hypocritical to build sustainable architecture, and recycle used materials and waste, while at the same time demolishing buildings into which values and energy have been invested. Thus, we need to deal with recycling comprehensively.

Thirdly, the article brings up recycling of architectural and art elements that, being transferred to what is newly designed, can influence its design or even concept. For instance, original Gothic stained glass windows can be transferred to a modern church and materialize its ideational and conceptual value, as is noted in an example of the Church of Saint Joan of Arc in Rouen, France. Another category is where an ordinary element or object of some other use becomes architecture.

Architecture also finds inspiration in taking over older architectural styles and their forms and elements, as was typical for eclecticism and historicizing architectural styles of the Long Century, represented in many European cities. This theme is quite interesting, having fascinated architects and artists in cyclical periods; for instance postmodernism as well as contemporary architecture up to certain point seek formal inspiration. In this case, there is a narrow connection with ideational recycling, where architecture at the end of one of its evolution points looks for answers in older concepts.

Finally, there is the topic of recycling as the central idea of an architectural concept. Citing some inspirational examples embodying such ideas, the article points out how recycling at its highest level not only materializes a belief in architectural quality, but reflects the deepest value of recycling.

Architects, indeed people, whatever they are determined to do, have a duty to give attention to recycling and respect the achievements of their antecedents. Because to create without thinking about what has been created is questionable not just in terms of environmental sustainability, or economy, but more broadly of cultural and social consciousness.

## **PARTICIPATORY DESIGN AS A TOOL FOR SUSTAINABLE REGIONAL DEVELOPMENT**

**Marián Ontkóc, Veronika Kotrádyová**

*Keywords: participatory design, social sustainability, rural, community, place attachment*

Globalization is changing our world at such a speed that regions are losing their ability to follow up. Updating infrastructure and making it available and cheap for increasingly more people to reach destinations in a short time. This has created massive pressure on labour. Transnational corporations can build manufacturing establishments anywhere in the world and attract labour to these locations which was not possible before fossil fuels were exploited to gain cheap energy. Tradi-

tional and historical regions are losing their identities. By copying a pattern, local specifics are disappearing and are being replaced by global uniformity.

This together creates huge pressure on rural areas. People from villages are moving to city suburbs because of work opportunities and people from city centres are leaving them because of increased real estate pricing.

Understanding that, we can follow cultural concepts and transform them to fit the current era and sustain local identity within communities. Compared with evolution, identity as part of social sustainability has the same self-regulated mechanisms. The adaptation process can be achieved in different ways, but only few are truly sustainable.

Conserving architecture and material possessions has not produced sustainable results. The origin and meaning of every material aspect of how our grandparents lived has faded away. Whole structures and details are copied and used as decorations without deeper understanding. Those details, materials and colours cause hormonal reactions in our bodies. We applied different methods and tested them to see if our process is taking the right direction. Sustainability is a process of adaptation through small changes. With this in mind, we seek to maintain local culture and react to tensions of globalism.

Identity as a sense of belonging is deeply inherited in us. From the evolutionary point of view, being part of a group increases your chances to survive.

The sense of belonging does not need to be related to family-based communities. Virtual groups with common tokens such as language and other cultural similarities can also initiate biological mechanisms releasing hormones and produce the feeling of safety. Belonging to a place has a similar effect; it gives an individual the sense of the known and the feeling of prediction. Our hormonal system is prepared. This set leads to wellbeing even if it is invented or imaginary. Culture can also be interpreted as a sum of rules that reinsure survival of the group as a whole. These rules are evolving on the backdrop of environmental and socioeconomic conditions. Only maintaining the current status without deeper understanding and origin preserves no more than the status quo. This condition is not evolving and will disappear over a few generations.

To restore the sense of community and reconnect local people to their village on a deeper level, the participatory approach was tested. The process and tools well known from urban areas were applied in certain Slovak villages. As compared to participation in cities, in the rural environment, the process is more time-consuming. In theory, this should bring a result that lasts longer than that achieved by standard processes.

One of the goals is to prepare and show in rural regions that what they have is a good stimulus for the development of tourism. Local jobs can be created and managed locally without the need to wait for something or somebody.

Methods proposed by us will have several outcomes like networking, open communication and, if successful, can be an inspiration for other villages and activists to adopt this approach. This time-demanding activity can help support local people and show them how to coordinate themselves in the decision-making process. The bottom-up approach increases self-esteem and by placemaking, small public interventions can help with communication with local administration. Communication between local municipalities and people is crucial to achieve democratization of the decision-making processes.

The participatory approach in design is a challenge for the designer alone. They take the role of facilitators and must use their creativity to achieve a satisfactory outcome. By involving local people in the design process, the whole process is not only transparent, but people can recreate their attachment to place and sense of community at a deeper level. Even such trial is time-consuming and demanding on both sides; the result and experience is more sustainable and can create synergy among all participants if it is handled well.

The bottom-up decision-making process leads to the development of the creative potential of citizens, deeper accord, greater feeling of responsibility and mobiliza-

tion of residents' own efforts in rural regions. Communication between citizens and local municipality is crucial to succeed in achieving a positive outcome. If one part is missing, the results remain theoretic only. The role of the designer is that of a facilitator.

Short-time thinking, human potential and capability of local people are the main obstacles to sustainable inclusive development. Effective research by participatory design in rural areas can only be conducted in person. Unfortunately, the current pandemic situation does not allow for a proper field research and completion and testing of the hypothesis. Time-consuming sessions, closed local archives (the only source of information about small villages) and intense human relationships have made us unable to continue the research. The research, local contacts network and local activities are still ongoing.

## **OVERLOOKED HERITAGE: INTERIORS IN SLOVAKIA**

**Michal C. Hronský, Dušan Kočlík, Katarína Morávková**

*Keywords: interior, interior design, heritage, memory, renewal, virtual recovery*

The creation of architecture is generally multi-layered and often complicated not only with respect to relationships (client - space - time - finance ...) and the surrounding environment but also the current conditions under which the architecture is created. Every client, every assignment is always unique and original. Unlike the visual arts and product design, all architectural works create three-dimensional interior space. The environment for life and work, which is a synthesis of an artificially created environment and nature, is crucial for people and their lives. The creation of interior space is the main cognitive characteristic of architectural creation. Architecture creates a basic spatial framework for the interior.

Interior design is a complex process that combines the needs of the user with the properties of existing or emerging space. The requisite of this process is the adequacy and appropriateness of the design with regard to the properties of the building. Interior design is a highly specialized field that differs from all other types of design, especially by the fact that in addition to the function, aesthetic qualities and structure of the elements, an interior designer must respond to a specific place. However, this discipline can currently be divided into three separate specializations: interior decorating, interior design and interior architecture.

Interior decorations are the art of interior enhancements, which give it a certain style (in combination with the architecture).

Interior design is an interdisciplinary segment that deals with the creation of interior spaces, expressing a certain specific atmosphere and identity.

Interior architecture is associated with the reconstruction or revitalization of existing buildings, or with emerging architecture.

The interior is always delimited by architectural structure that gives the interior the basic spatial characteristics and determines the size, shape and proportions of the interior. The interior space is directly defined by the peripheral structures of the building or by various internal structures. Just as an artificially created environment has a strong influence on a person's life and feelings, it has also been proven that it works the other way round as well, which means that human needs and demands are a decisive factor in creating space for a person. Architects create for people and therefore the application of psychology in their work is objectively interwoven with questions of form, construction, economics, sociology, etc.

The project described in the paper is based on fundamental research concerning the beginning, development and trends in Slovak interior creation and design, as well as the beginning and development of Slovak interior school in the 20<sup>th</sup> century. Thematically, it will present less explored work and designs of the most significant personalities of Slovak architecture from the 20<sup>th</sup> century to the present. The main aim is to create a digital database and to prepare and publish a full-colour

book that presents the most significant, as well as unpublished works of Slovak interior designers.

During the research, several situations were observed repeatedly. They were often peculiar, but also similar because of the fate these works met. The case studies demonstrate the development of interior design of the second half of the 20<sup>th</sup> century, its current state and the level of care given to these works. Many works of architecture of the second half of the 20<sup>th</sup> century have lost their fight for survival. Nevertheless, architecture has at least a chance that it might last for centuries. In contrast, the useful life of interiors is calculated in years, in decades at most. Despite this natural characteristic some statements about the interior design in the given period under review have surprisingly been preserved. It seems paradoxical that the inactive force of "carelessness" that allows for great architecture to decline and decay is the same force of passivity that has enabled some works of interior design to survive almost untouched. The research focused on public interiors of both well-known and a bit less-known buildings designed by Slovak architects from various parts of Slovakia. It presents the work and creativity of interior architects, especially from the communist era.

However, interiors are often temporary creations; their existence is relatively short and fleeting. Many past and no-longer-existing interiors should not be forgotten. It is because even in relatively recent times and difficult to understand conditions of current time works of indisputable architectural and artistic qualities have been created. The ambition is to bring these works back to life in various ways.

Research focused on the public interiors of well-known or a bit less known buildings by Slovak architects from various parts of Slovakia. It presents the work and creativity of interior architects. The result, as is the case these days, was often short-lived, so the research offers options for saving some works in the form of preserved photographs, drawings, occasional exhibitions or in the form of virtually recreated interiors.

## **THE DIY PRINCIPLE IN HOME IMPROVEMENT: BACKGROUND, MOTIVATION AND BENEFITS**

**Andrea Ďurianová, Peter Daniel**

*Keywords: DIY, home improvement, motivation, benefits, design, craftwork, self-expression, self-realisation*

"Do-it-yourself" ("DIY") has become a global phenomenon reflecting consumers' strong interest in producing the most diverse objects for themselves. The reasons behind the popularity of DIY projects include easy access to information on the Internet and a broad retail offering in the hobby sector. Despite the massive ongoing growth of this phenomenon among consumers, it has so far received only minimal attention in academic circles.

The present paper describes the findings of survey-based research into individuals' engagement in DIY home improvement projects. The "DIY home improvement" questionnaire constituted an empirical part of a doctoral thesis on "The DIY principle in the contemporary residential interior" undertaken by the authors at the Faculty of Architecture and Design of the Slovak University of Technology.

The present paper explains the basic factors that motivate and inspire so called do-it-yourselfers (or DIYers), how DIY functions as a process and reflects on how participants evaluate their own DIY projects. The research population was the so called do-it-yourselfers who had already carried out a DIY home improvement project that was extensive in scale according to their own subjective assessment. Such a project would typically be building a house or remodelling a house or apartment. Home construction or remodelling to match current standards is a complex task involving a wide range of activities requiring a mixture of skills at various levels. Hence, there are various processes where so called do-it-yourselfers often have to communicate and cooperate with specialists, craftworkers and firms. Even so, a relatively high percentage of the DIYers believe that they can complete tasks better, or with a greater care, than a professional.

Respondents reported they had a highly specified idea for the outcome of their project before starting implementation, which was often documented in a design drafted by an architect or in their own hand. Based on their own assessment, the respondents appeared to be relatively experienced and skilled craftworkers who perform many craft-like activities on their own—starting from design, through project managing, construction, interior design and furnishing, up to changing the original features of objects or interior, and the production of furniture and furnishings from raw materials. In the respondents' view, the advantages of DIY greatly outweighs disadvantages and they also expressed high satisfaction with their own work.

A significant finding of the survey relates to the respondents' evaluation of their motivation and benefits. Besides saving money, they often speak about values associated with subjective experience such as self-improvement or "self-expression". The vast majority of respondents described their motivation to start DIY using terms such as "because I enjoy it" and the most frequently mentioned benefit of a DIY project was "good feelings/taking pleasure in craftwork". So called do-it-yourselfers also appreciated having "a home as they imagined it". This indicates that home improvements and the craft work involved can be a means through which individuals express their own ideas or develop and apply their own creative manual skills.

One of the long-discussed topics in the field of design is the end-users' participation in the design process. In our view, there are substantial benefits from DIY production such as a strong relationship between an individual and the resulting object. The establishment of a high-quality relationship and a better understanding of "how things work" amongst consumers can affect the life cycle of objects and individuals' overall consumption patterns. These appear to be problematic in the contemporary material culture and a contributing factor to the global ecological crisis.