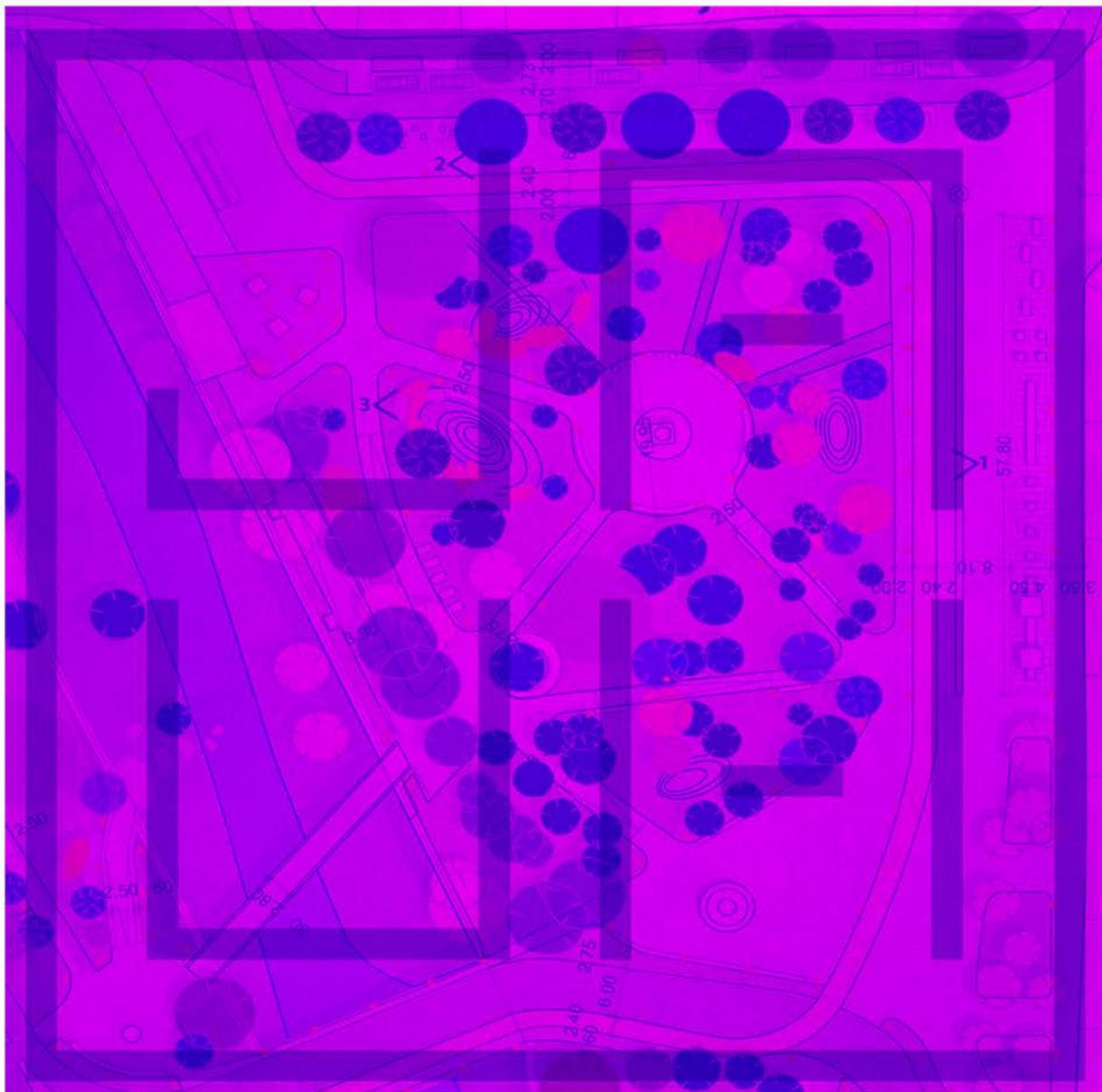


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Landscaping project for Libertatii Park in Hunedoara, 2018 by Raluca Hurmuz

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Aims & scope

The Journal of Architecture, Urbanism and Heritage is a peer-review academic journal which publishes original research papers and advances theory, research and practice in the fields of architecture and urban planning.

The interdisciplinary scholarly publication is aimed at advancing conceptual, scientific, and applied understandings of Architecture, Interior design, Urbanism, Built environment and Preservation and heritage studies.

Its articles include recent research findings, empirical research papers, theoretical and integrative review articles, book reviews and innovative new practices, creating a link between theory and practice, researchers and practicing professionals.

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INTERIOR DESIGN

Cristina-Mihaela Ifrim - Gallery of contemporary art and publication - Promoting recent art and young artists, Creating a space appealing to all the senses	9
Gaiță Răzvan - Non-compliant Commercial Spaces - Conversion of the Cigarette Factory in Timisoara	19

PRESERVATION AND HERITAGE

Ioana Daniela Cotuna, Povian Cristina - Restoring the spirit of the place in the old interwar buildings, refunctionalized in the communist and post-communist period	33
Olariu Gigi Dumitru - The Bezdin church, technologies used in restoration	45

URBAN DESIGN AND PLANNING

Mirela Szitar-Sirbu, Raluca Hurmuz, Robert Budau - The role of blue-green infrastructure in redefining the identity of a shrinking city - Hunedoara	53
Tincu Dorina - The street as a public space in the workers' colony and its impact on the ghetto-type community	61
Ioana Barbatei - The impact of distance to city center on housing prices	73

The image shows a gallery space with a warm, orange-toned lighting. The walls are light-colored and feature several large, circular openings. One opening on the left is a large, glowing circle. In the center, there is a large, dark, circular opening. To the right, there are arched doorways leading to other parts of the gallery. The floor is dark, and there are some framed artworks on the walls. The overall atmosphere is modern and artistic.

Interior design

Gallery of contemporary art and publication - Promoting recent art and young artists, Creating a space appealing to all the senses

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ABSTRACT

Art has always been associated with the idea of beauty, perfection, from the use of perspectives to the inclusion of the golden section. The themes, events and characters that seem to be from another world and the artists were looking for perfection. As the time went by, however, the vision of the artist has changed with the world, and now in contemporary art perfection is no longer the aspiration of the artist, but from the artist's point of view it often shows the world as it is, far from perfect. Contemporary art is much more experimental and deals with topics that the public can relate to, having an impact on today's society. Visiting the contemporary art galleries and museums becomes an experience that involves the public at much higher level than a traditional one and the limit between art and the public almost does not exist.

Keywords: contrast new-old, recent art, versatility, reversibility, contemporary, color, fusion of styles.

I. INTRODUCTION

Contemporary art is generally considered to have been produced after the mid-20th and 21st centuries. Contemporary art has new means by which artists can convey their vision using new technologies or materials. In addition, to other eras in art, this is defined by diversity and does not necessarily take into account a certain tendency or style being a much more personal art. Contemporary art contains various topics involving different cultures. The art represents a cultural dialogue approaching topics which people can relate to. Contemporary art can be defined as a breakthrough of art, of the world and which provokes public reactions being much more experimental and in which the line between art and viewers almost no longer exists, the interaction with the art is encouraged actually.

II. CONTEMPORARY ART

II.1. History of contemporary art

Even though from the international point of view the 60s seem to be the beginning of the contemporary art, the term "contemporary" appears from the end of the 50's when the need for delimitation between modern and contemporary begins to be needed. Of course the need to create a contemporary art museum arises because many artists did not find their place in traditional museums. The New Museum in New York, which was established in 1977 as an alternative to the museums of the time like the MoMA, began with the creation of semi-permanent collections that included works of art that could not be found in a traditional museum such as dematerialized art, conceptual art, performance art or process based art. This museum focused on contemporary art and the collections were completely changed after a decade, the works being sold and thus removed from the collection. However, this model of collection was also found in 1818 at the "Musée de Luxembourg" in Paris which became the Museum of the living artists and came into opposition with the Louvre which included historical artists. These museums had fluid collections that did not follow a correct history of contemporary art. The first director of the New Museum acknowl-

edged that this way of collecting refused access to the past and there was no dialogue between past and present [1].

Something very common in museums and art galleries, both past and present, are solo collections, personalized representing the artist's individuality and vision. Although these collections offer an interesting and dynamic status, a permanent collection should not be lacking. Such a collection relates to the past and this allows good communication with the new acquisitions that direct the perception towards the future, but the museum / gallery has a commitment to the past. Most contemporary art museums initially represented local heritage, and then introduced current or individual collections with a particular theme.

If we look at things on a global scale, defining the beginning of contemporary art is impossible to find being a moving target. With the evolution of time this point in time which would suppose the moment when the contemporary period began has changed.

Until the end of the 1990s the contemporary was synonymous with the post-war period (after 1945) the 60s were and are still considered the years in which the contemporary began but some historians consider the 60/70 to be a late modernism. Others argue that after the fall of communism in 1989, the contemporary actually began. The definition of the moment from which the contemporary began tends to differ from country to country, as an example for China is the late 1970s while in India it is the 1990s [1].

Even though the subject is highly debated, many historians consider the 1960's to be the end of modernism and thus the beginning of the contemporary.

II.2 Major movements of contemporary art

The major movements approached by contemporary artists are Pop Art, Photorealism, conceptual art which started in its turn and minimalism and performing art. Other movements are installation art and street art. Pop Art is considered one of the first movements of the contemporary. Leading artists of the movement are Andy Warhol and Roy Lichtenstein, and this

movement is defined by the interest of portraying mass culture and re-imagining commercial products as accessible art. The movement lasted from the 50's to the early 70's, but it came back to be Neo-Pop Art in the 80's.

Conceptualism appeared formally as a movement in the 1960s, but it developed in the 21st century and is a very valid form of artistic expression even today. Minimalism materialized in the 1960s and is relevant today both in contemporary art, but also in architecture and interior design.

Performance art combines theater with visual art, transmitting a social message with a strong expression. This movement appeared in the 60's. Installation art is an immersive art environment being very experimental. Street art begins in the 80s with graffiti art as a social activism movement [2].

II.3. Contemporary art in Romania

Contemporary art in an art gallery creates a unique experience for the public that engages them to react and interact with it.

In Romania, the beginning moment of the contemporary is the fall of communism in 1989. After communism, the freedom of artists to convey their vision of the world and of life became something normal again. Over time, contemporary art has developed, and in recent years it has become quite visible in the Western space. Due to the events organized by the commercial galleries in the cities of Cluj, Timișoara and Bucharest, the Romanian art has become much more visible. The Romanian artistic landscape seems very dynamic and vibrant, and among the important events are "Mapping Bucharest" from the Vienna Biennale, Art Encounters from Timisoara and Romania's participation in many international art fairs and the Venice Biennale [3].

In Romania the movements approached are varied, but one can meet conceptualism, minimalism, performance art, installations and street art, and artists use different techniques on topics such as the communist period, world view and social topics. Of course, even as local contemporary art progresses, there are unfortunately shortcomings such as research and publications, lack of art in the

public space, lack of funds and also the disappearance of art galleries in the Romanian space without a stable art market. Two galleries chosen from the Romanian space are examples to follow, both showing excellent strategies and a portfolio with which they can be proud of, contributing to the local contemporary art course, but not only.

III. ART GALLERIERS, MUSEUMS, STRATEGIES AND CONCEPTS

III.1. Mobius gallery

The Mobius Gallery is one of the most important art galleries in Bucharest and was founded in 2015 by Mira Burke and Roxana Gamart becoming a platform for the representation of contemporary art artists in Eastern Europe. Their mission is to promote artists with names that do not have a certain fame on the market, but which present a vibrant art.

In addition to exhibitions, the gallery has events with artists who talk about their art and hold a publication. The artists they collaborate with are: Adi Tudose, AES+F, Andrei Gamart, Bianca Mann, Codruța Cernea, CrocodilePOWER, Lea Rasovszky, Roman Țolici, Sándor Szász, Sasha Bandi. The gallery has an opening for both Romanian and non-Romanian artists [4]. The exhibition space is a modern one like in figure 1, 2, being an open space with a certain dynamic.



Fig. 1. Mobius Gallery interior space [5]



Fig. 2. Mobius Gallery interior space [6]

III.2. H'art Gallery

The H'ART Gallery, like in figure 3, is one of the first contemporary art galleries in Romania (the second private gallery). The gallery was opened at the end of 2002. The mission of the gallery is to promote young artists, so exhibitions and paintings, like in figure 4, include works by artists after the fall of the communist regime in 1989. The artists with whom the H'ART gallery collaborated have become quite important for contemporary art in Romania. among which: Alexandru Paul, Florin Ciulache, Ion Bârlădeanu, Michele Bressan, Ștefan Triffa, Anca Mureșan, Adrian Preda, Nicolae Comanescu, Tets Ohnari, Gili Mocanu, Suzana Dan. Ion Bârlădeanu being an artist whose story was represented in the documentary "The World According To Ion B" which won an Emmy award. The artist was a street man who made collages from newspapers and magazines and was discovered by the gallery owner, Dan Popescu [7].



Fig. 3. H'ART Gallery logo [8]



Fig. 4. H'ART Gallery – interior view [9]

III.3. Strategy

In addition to the way art pieces are exposed to the public, it is very important that the gallery has a strategy to approach and manipulate depending on the context.

The lack of a strategy can be one of the reasons why many contemporary art galleries in Romania fail to last very long. Architecture should not overwhelm the exposed art or suffocate it, instead it should become an experimental space. All the three museums that are the basis of the analysis, represent three different strategies but they have one thing in common: they all try to represent the interests and history of those citizens who are marginalized, disregarded and do not follow a recognized mainstream trend, but appeal to an expanded one. Range of artifacts that include contemporary art in generally valid or locally valid historical themes. Since many states avoid funding this area of culture, many museums or galleries depend on funding.

Since the beginnings of contemporary art, there is an attempt to delineate what we consider modern and what we consider historical. Many museums / galleries also repeat at the present time art that addresses historical themes and tries to frame contemporary art in the past. An example of such a theme would be communism, a theme often addressed in contemporary art. As we mentioned the fall of the communist regime in Romania restored the freedom of the artists and without these limitations we could consider this the point where contemporary art began in the country, considering that each country / state has developed according to these political milestones. From a cultural point

of view, contemporary art is important, and galleries or museums must create a direction for it. Timeliness is an important factor and it must be remembered that the current art will have a future and will be admired with the nostalgia with which the world today regards the historical art.

III.4. Van Abbemuseum

This museum was founded in 1936 and occupies two buildings, one of them from 1936, and the second one is post-war opened in 2003. Under the leadership of Charles Esche, the museum is very experimental using the resources of the museum, these being collections, archives and library. He chose to represent the heritage through small collections called "Connections" with different topics having discrete installations without a historical narrative. He used his own resources in an innovative way that makes connections between works. He restored the works acquired by the previous director and all this brought in a new way. Part of this path was the desire for the museum to become a "museum museum" or a "collection collection". One of the collections was around Cubism, bringing for the first time to Palestine a work signed by Picasso, which is the center of the collection. The museum emphasizes communism and the possibility that this regime will return [1].

III.5. Reina Sofia

Founded in 1992, it occupies two huge buildings in central Madrid. Due to the position there is no problem that this museum would not have visitors and this fact allowed the focus on the way of exhibiting the works. This museum has a more classical approach. The museum presents temporary collections, but the permanent collection has undergone changes in the last decades, the approach being the representation of the country's colonialist past, framing its history in a wider international context. Although the galleries present art considered modern rather than contemporary, the way they chose to exhibit it is certainly contemporary. Part of the strategy is to use art works as documentation. Out of solidarity for the intellectual culture, this museum introduced an educational program for the young population [1].

III.6. Mueem Ljubana

Opened in 2011 in a former military base in Yugoslavia. It is worth mentioning that this museum cannot be compared to the other two museums from a financial point of view, but it becomes an example for a museum with a smaller budget in a city where contemporary art is not developed. This museum recovers the history of the country even though it is considered controversial because it brings with it emotionally sensitive topics of citizens, addressing moments that have devastated the region. The exhibition of works is organized into categories with themes of time in chronological order highlighting key periods. The present is played out since the fall of communism. Since the state cut funding for culture, the museum has introduced the rehearsal, bringing back previous collections starting with the first collection [1].

III.7. Study conclusions and concept

By analyzing the history of contemporary art as well as the strategies adopted by museums and galleries, a strategy for the proposed gallery can be defined.

A gallery is a powerful pillar in today's art world. In this space, artists can make their debut in art, being brought to the world as Ion Bârlădeanu exemplified, managing to change their lives because their talent was recognized. The characteristics of the galleries as well as the problems that may arise during the course influence the progress of the art or the public's interest in the recent art, thus identifying them can be taken into account in the proposed strategy, but all the given examples have shown flexibility in being able to modify the strategy depending on the context.

Y (young art) being the main objective of the gallery promoting young artists (bringing them to the attention of the local public but not only), the new art, while following the course of local contemporary art and helping to identify a direction in this era of art.

Dialogue with the public is important in creating a cultural conversation, the gallery also includes events with artists. Taking into account that art publications are missing in the Romanian space, the proposal also includes a gallery publication.

The role of a publication is important, bearing in mind that where it exists, that for example the Mobius Gallery can monitor both the process of art and artists, as well as archive previous themes and exhibitions. The connection with the past being important it is desired that at the beginning of the gallery's activity it should include events with local artists who have well-known public names. The past in contemporary art in Romania is not so far away, but it includes topics and topics addressed by artists that were relevant and represents the process of contemporary art. An important aspect is the contribution of placing contemporary art and Romanian artists on the world map.

IV. EXAMPLES

IV.1 Hongkun Art Gallery

This gallery is located in Beijing, China. The interior has a sculptural character being made up of several arches that can be found throughout the space. The concept of the gallery is the spatial rendering of a ribbon that travels throughout the space. The style approached is minimalist, like in figure 5, 6, allowing the art to unfold without distraction. Architects: Penda. Surface: 2000 square meters. Year: 2013 [10].



Fig. 5. Hongkung art gallery [11]

Although the space is minimalist, the sculptural character gives it complexity without distracting from the exposed works of art. The textures are uniform and the color when used is very unsaturated creating very clearly defined lines almost graphic. The ventilation system is visible but the space is high enough that it is not so present for the users of the space, the installation being also white. The floor plan is very present due to the color used. The space is open and airy. De-

posits are made in such a way that they are not detectable and artificial lighting is aided by the presence of natural light. Lighting is focused on the exposed works.



Fig. 6. Hongkung art gallery [11]

This gallery is considered a good example because of its concept: the gallery has a unique architectural identity regardless of the collection on display.

IV.2. "CASA NEAGRA DIN PRIMAVERII"

The Black House is located in Bucharest and is the Museum of Recent Art (MARE). It is located on the Boulevard Primăverii, figure 7, in the luxury area of Bucharest, replacing a villa from the interwar period. On the plot of the museum there was a villa in the strange, but the nice neo-Florentine / Neo-Venetian / neomauro style that, in the 1930s, coexisted with modernism, Art Deco or the last neo-Romanian style Mohicans. The house with shaken history was also inhabited by the feared Ana Pauker, a character from the highest leadership of the Communist Party. Although it was demolished, the building that replaces it respects the aesthetics of the former house. Architect: Youssef Tohme Architects & Associates Suprafață: 1580 mp Anul: 2015 [12].

"The punctual interior openings help the feeling of cloister, but not the visitor's focus on the works. It seems that, at one point, the idea of friction, of imposed intimacy and of many rooms (reminiscent of the old house?), The architecture and the concept, therefore, begin to be stronger than the works themselves. Which, in fact, blames many museums (some famous

ones) of the last decades [12].”



Fig. 7. The Black House. Exterior view [12]

The arrangement of finishes and approach is minimalist, but the architecture is complex. The compartmentation is inspired by the old house and although it is not an easy path to follow from the visitor's point of view it is probably a unique experience. The works are positioned so that they can only be observed from a certain perspective or from a certain level, like in figure 8.



Fig. 8. The Black House Interior [12]

Thus, in the case of the house-to-house subdivisions that are proposed for the dissertation subject, the complexity of this system should be as clear and easy to experiment and not distract from the works of art.

V. CONTEMPORARY ART GALLERY IN BUILDING NO.13, UNION SQUARE IN TIMISOARA

V.1 History of the building

The building known today as building no. 13 from Union Square housed the Swabian Bank, figure 9, 10, 11. The building was built in 1812 and initially had a basement and a ground floor,

but it was modified according to László Székely's plans, adding the two levels in 1904 in the style specific to the 1900s in Timisoara.

Due to the location on the eastern side of the Union Square, the construction housed prestigious public institutions for the beginning of the 20th century, such as the Economic Bank of Southern Hungary and after the 1920s it will be known as the Swabian Bank, following as after the Second World War to be nationalized. This period will bring major damage to the building, due to aggressive and unauthorized interventions, which endanger the structural stability.

The style of the building is Secession and presents pilasters with anthropomorphic figures [13]. It also has decorative elements of plant origin at the top of some windows in the main facade. One of the owners of the building mentioned in 1828 is Emmerich Oszlanyi.

The building was restored and it needed major structural interventions that respected the historical value of the building.



Fig. 9. Union Square no. 13 – old photo [14]

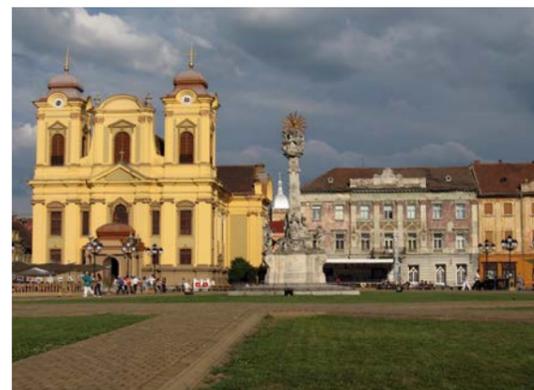


Fig. 10. Union Square no. 13 – before restoration [15]



Fig. 11. Union Square number 13 – after restoration [16]

V.2. Other functions of the building

On the ground floor of the building that is the subject of the dissertation project, namely building no. 13 in Union Square, there are two restaurants, namely Pepper steak&shake and In Thyme. Both the existing restaurants presented and the proposed Contemporary Art Gallery are present in the same building and obviously the functions can intersect and communicate.

Both functions have social and cultural interest and have touristic potential, being located in an important market and thus having access to the public.

The way in which they can benefit each other is that after visiting the Gallery or after participating in an event within it, visitors can benefit from the presence of the venues to choose depending on the occasion, what they want at that time or the demands personal, the premises offering two different options such as menu and atmosphere. Similarly, an outing to one of the restaurants may arouse an interest in visiting the Gallery.

In any case, both the place and the gallery have in common the fact that they want to bring the world together and create a pleasant environment for conversations enjoying food, drink or art, cultural dialogues being part of the gallery's mission.

V.3. Mission of the gallery

The mission of the gallery is an important part of the concept and includes the representation of the concepts brought in the temporary collections by the artists.

Art has always been the one that appeals to the senses of the public by transferring them

through their imagination to another world. Often there is a message that the artist represents so that it is visible or is to be found.

Although the art is sufficient the attention of the public could be distracted by the architecture and thus the perception of the message could have difficulties. Therefore the proposals for the exhibition space include the idea of modeling the architecture so that the atmosphere or the message is represented inside. The art addresses the visual perception that is always connected with memory and imagination but the visual sense is only part of the experience. Without resorting to other senses, a total connection with the public cannot be made. Only visual perception makes the experience quite distant. The atmosphere can only be experienced if one uses more senses and is not limited to the visual one. The tactile and auditory senses are required to make a strong connection with the public imagination.

“The skin is the oldest and most sensitive organ we possess, the main means of communication and the most effective protector [17].”

All senses, including the visual, are extensions of the tactile sense.

“My body is indeed the vessel of my world, not as an observation point of the central perspective, but as a locus of reference, memory, imagination and integration [17].”

Conscious public awareness of art and architecture allows full involvement in the imagination. “During the creative process, both the artist and the craftsman are directly involved through their bodies and their existential experience, being less focused on an objectified external problem [17].”

Given this, the experience of the public should be similar so that everything outlines the atmosphere and conceptual of the artist being fully integrated in his world.

Thus, the arrangement of the space should be based on the idea of “reconstructing the experience of an undifferentiated inner world” in which we are no longer just spectators but a world to which everyone is a part.

VI. CONCLUSIONS

The concept thus refers to a gallery that has its own identity but which has a large flexible space

that allows its transformation according to the concepts of temporary collections.

The innovative quality proposed for the gallery is the idea of creating an immersive experience for the public, appealing to all the senses and framing any visitor in the desired atmosphere. As it's always going to change to something new, the expositions will be known as something exclusive that should not be missed.

The gallery will focus on promoting new artists by bringing them to the attention of the public. The gallery will collaborate with artists but is going to be open to more artists without being limited to a number. The exhibitions include works and projects from different movements of contemporary art. During an exhibition, opening events will take place with artists who will talk about the exhibited art and their concept. The gallery will be also present on social media, it is desired that many people that live in the city or visit to participate in the gallery's activity.

The interior design project will include offices, archives as well as the gallery's own publishing house. Although the building has a historical architecture, the interior will be designed in a contemporary style with special, vibrant pieces of furniture with an artistic atmosphere and a lot of color.

The interior design will have a reversible character so the "house-in-house" system is going to be applied. The own identity of the gallery will represent a general aspect but the space will contain different pieces of furniture without many repetitions. The art that the gallery will present is very recent, so the space becomes a fusion of conceptual elements, textures and colors or aesthetics in general, all in a historical context (the building and location) with a controlled direction that will make the space unique and interesting.

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Non-compliant Commercial Spaces - Conversion of the Cigarette Factory in Timisoara

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ABSTRACT

Starting from modern concepts that involve both the ideas of a productive city and the new methods of restoration, the study follows the conversion of the Cigarette Factory in Timisoara and the transformation of the ground floor of the building into a commercial space, presenting at the same time a series of principles that can be used as directives for future projects.

Keywords: non-compliant spaces, productive city, conversion, creative restoration, commercial spaces, online commerce.

I. INTRODUCTION

The wave of privatization more or less legal of the different companies and the cessation of production activities, a wave that was felt most strongly in Romania in the 2000s, the financial crisis of the last years and the development of the services sector, all led to the appearance of vacant spaces, both in and around the city centers. These spaces have great potential due to the location which, in most cases, is a privileged one, but also of the malleable configuration of the different programs and functions, and the surplus of unused built environment is a considerable one, especially in cities with an industrial tradition. But, today, the former industrial assemblies are left in dereliction, waiting for either the time to speak or an investor to realize their potential.

In recent years, a new trend has emerged. With the help of the architects, who expanded their sphere of activity, involving themselves in the reactivation and revitalization of these waiting spaces, by launching discussions, ideas, proposals and initiatives, an alarm signal was drawn, and the attention of citizens and developers has been concentrated in this direction, as is the case with neighborhoods in Belgrade or former industrial cities in Belgium, France and Germany. Basically, these initiatives were implemented in the form of areas with functions for the local community, which led to its conclusion and the participatory development of districts or even cities. These centers started to harmonize different interest groups, gradually involving local owners and authorities in collaborative processes with different local industries.



Fig. 1. Cigarette Factory around 1905 [1]

In the case of Timisoara, the optimal position of the Cigarette Factory (Fig. 1) in the city, the lo-

cation itself, the neighboring functions, the size, the configuration and the relatively good state of preservation are strong reasons for the factory's refunction and the transformation of the Iosefin district into a productive district, neighborhood, which, in turn, carries a vast history also influenced by the community in the area. Former strategic-military city throughout history, Timisoara changed its character with the industrial revolution, under the Austro-Habsburg administration becoming an important economic center, highly industrialized.

The transformation of the Bega river into a waterway, initially designed to clear the area and to mitigate the devastating effect of the floods, has led to the emergence of a large number of factories along the canal, especially in the Fabric and Iosefin neighborhoods. The subsequent appearance of the railway workshops and the construction of an infrastructure for this purpose, led to the development of the Iosefin district in the most important district of the city, to the detriment of Fabric.

The industrial assemblies were located in the north of the neighborhood, along the Bega canal, south of the railway, thus making their appearance the Paltim hat factory, Pasmatex textile factory, Cigarette factory, Solvent industrial platform and, later on, the factories Electrometal and Electrobanat, creating an industrial core in the city.

The privatization of the factories after the fall of communism, in 1989, without further investments being made on them, with the sole purpose of obtaining the lands well located within the city, led to the gradual decrease of production and then to its cessation. Nowadays, the abovementioned complexes are in a state of continuous degradation, with the spaces that belong to them often used as storage areas and without a long-term operating plan.

Another way of approaching the problem, often encountered in Timisoara and not only, is the complete demolition of the industrial assemblies and the construction of commercial areas, of office buildings or of collective houses, totally degrading the character of the areas of which they belong, without being oriented to the needs of the community.

Starting from the industrial architecture that sketches the image of these assemblies, the history of these complexes, the way in which these constructions have influenced the evolution of the urban planning, through a mapping and evaluation of the industrial units available to the city, a list of those representing resources which deserves to be capitalized can be made and re-functionalized to correspond to the requirements of new users and thus brought back to life.

II. THEORIES AND CONCEPTS

II.1. Productive city

Starting from the statements of the “European 14 Theme” [2], in most post-industrial urban development projects, one of the most common theme - program is housing, in addition to a number of spaces for offices and various other public functions such as restaurants and small shops, in order to transform the neighborhoods in something “more vibrant and lively” [1]. The way in which this wave of projects were conceived excludes an essential theme for an urban regeneration to function in time, namely the productive economy.

Cities, at present, offer great employment opportunities for people with high professional qualifications, but at the same time a large number of poorly qualified people are excluded and left without a job. This relationship between work and life in the city, has generated problems related to the economy, mobility and social. Based on this principle, the urban regenerations realized under the ideology of a mixed city are less mixed than they claim.

Production and maintenance are all part of a complete contemporary city. Without bringing steel factories or any of the heavy industries into the center of the city, it is desired to gradually introduce small-scale artisanal manufacturing. Another recent demand in large cities such as Germany, France, Holland, Sweden, Switzerland, Austria, is the recycling industry located right in the center. Thus, saving space from program themes and arranging them for small and medium-sized businesses would encourage production in the city. An approach in which the manufacturing process is left vis-

ible, would link production to everyday community life.

One of the possibilities of merging local economy with the global one is by mixing housing and working areas, giving the production more opportunities for recycling, social interaction and belonging to the city.

The productive city would be that space, which, without denying the acquired spatial qualities, would open new directions for organizations that would bring together the inhabitants, the work and any other productive activities, such as commercial, crafts and logistic, in an open urban space. Starting from this concept and its application in different urban contexts, a variety of themes were generated such as: “From monofunctional residential area to a productive district”, “From a business zone to a living area”, “Productive streets”, “Multifunctional buildings”, “Urban agriculture” and “Productive urban transitions” [2].

II.2. Productive urban transitions

Developing cities by “regenerating built fragments” for space saving is “a challenge “ and even a common trend in most major European cities, but this “mutation” of the outdated industrial areas, requires a certain period of time to become active. The period is strictly related to the image to be printed and to the “site scale”. Cultural and productive activities can collaborate under favorable economic conditions, also participating in “the evolution of the identity” [2].

This theme is intended to be implemented and developed throughout the Cigarette Factory, thus introducing in the district the concept of a productive city, which will undoubtedly have benefits for the city.

II.3. Restoration and conservation of historical monuments

The monumental works of all peoples remain a living testimony of tradition and a spiritual message of the past. As the day goes by, humanity is increasingly aware of the negative impact that the effect of globalization has on human values, as heritage is considered a way of salvation for future generations.

Prof. Petre Ghergu considers that the basic principles of conservation and restoration were presented, in first instance, through the Athens Charter (1931), which gave rise to vast international movements. Formulating these principles was an elementary step, but the application within one’s own culture, according to one’s own tradition, was an essential decision. The historical monument represents both the architectural work, taken as an individual object, as well as the urban or rural site in which it is located, a site that attracts significant events and developments from a historical point of view. The preservation and restoration of monuments is a discipline that appeals to all the sciences and technologies that can lead to the salvation of the heritage [3].

Starting from the Venice Charter (1964), the preservation mainly involves the continuous maintenance of the historical monument, but also of the natural setting in which it is located. Any new insertion and any new arrangement could destroy the composition from a volumetric point of view and automatically the use of color is strictly forbidden. Moving components or even the entire monument is not allowed, unless moving them is a solution in order to save it. Art objects, such as sculpture and painting, which are part of the atmosphere of the place, cannot be separated unless this is the only way of preserving them. In the case of restoration, it aims to preserve and bring to light the aesthetic and historical values specific to the monument, respecting the original documents and the vestiges of the past. Any completion will be understood as an architectural composition, which will correspond to our times. Only when traditional techniques are inadequate can one resort to modern means, the efficiency of which has already been tested and guaranteed. The elements that replace the missing parts, must be integrated in a pleasant and balanced way with the whole, different from the original parts, precisely not to distort the historical object. By observing all the interesting elements, the additions must be related to both the monument and the natural landscape.

Over time, due to changing different urban principles and contexts, the restoration has gener-

ated new approaches such as: “Architectural conversion”, “Functional reconversion, packing industry”, “Digital restoration / restoration”, “Integrated Restoration “ and “Creative Restoration” [4].

II.3.1. Architectural conversion

According to arch. Iolanda Balogh Szekeres, the conversion as a method of restoration, implies the modification of the original function with another function that can lead to the reintegration of the monument into the circuit of daily life. This change leads to major changes in the layout, the spatial organization, the materials and finishes or the color. At the end of the work it is important that the two faces, both the historical one and the new one inserted, are recognizable and co-present. In the last two decades, this kind of architecture has become a real trend. The phenomenon is also due to huge quantities of relic objects, inherited after the industrial revolution, in which the idea of using them appears. This wave of conversions started from both the United Kingdom and the United States, raising the issue of using spaces that, half a century ago, would have been replaced by new ones. Over time, the diversity of buildings that should be saved has increased, as today buildings such as factories, warehouses, have come to the attention of architects and cities management just to be restored and preserved. There are also cases when such a building is not of public interest, the construction being seen as a wreck, which does not belong to the everyday image. In many cases, industrial buildings are not classified as historical monuments, which would have led to the appearance of constraints, but as soon as they are removed, they offer multiple variants of arrangement. The industrial buildings attract advantages from the point of view of the location, most being located near the center, from the point of view of the large surfaces, but also of the interior spaces, well lit. Within each neighborhood, these are objects strongly anchored in context and properly structured in terms of traffic, landmarks and urban plots. The variety and scope of industrial spaces offers the possibility of activating the area, by sheltering the different activities that

meet the current requirements. The accelerated development of the big cities, states the peripheral industrial buildings, in areas with a great potential for the reevaluation of the city. Both morphological features and a rich architectural environment create valuable opportunities for functional conversion [4].

II.3.2. Creative restoration

Speaking from the statements of arch. Iolanda Balogh Szekeres, the restoration, as opposed to conservation as a scientific method of identifying a monument, is rather a process of modeling or even of transformation. Thus, creative restoration is the result of combining conservation with modern architecture, archeology, design, urbanism and other contemporary arts. The creative restoration process gives birth to a living organism, generating meeting and dialogue spaces, also offering the opportunity to look inside the architecture. Its dual intention, to create a new architecture for various other functions and at the same time preserving those present, presents a way to redefine the historical monument and introduce it into the current circuit. Within this theme the restoration is redefined by architectural concepts such as function, relations between interior and exterior, relationships between the built background and landscape, but also volumetry. Rediscovering the function through interventions at the level of the planimetry, reinventing and combining the volumetric forms that come to complete the ensemble, the stylistic characteristics specific to the chosen program, the highlighting of the main building material are just some of the ways in which the creative restoration makes its presence felt [4].

III. THEME PROGRAM

Gheorghe Vais statements claim that the spaces destined to market various products, the shops, did not evolve from Antiquity until the Renaissance. The interior and exterior areas were separated by a counter. With the increase of commercial spaces, the counter will have the role of separating the areas intended for the customer, from the areas used by the trader. According to the testimonies of Gheorghe

Vais, a first innovation, that of the showcases, appeared at the end of the seventeenth century in the Netherlands and was quickly adopted by the rest of the European countries. Initially composed of "small glass mesh fixed in wooden frames or lead reinforcements" [5], the windows will exceed the area of 1 sqm only by the 1840s. Due to the expansion and development of maritime and land exchanges, there is a need to build large stores or warehouses. With a metal structure without load-bearing walls, this kind of space offers traders large areas of operation and flexibility. With the diversification of the products, the cities, in the 17th-18th centuries, are committed to creating more specialized commercial spaces, properly wrapped and insured in case of fire. Through the years the Academy of Architecture of France proposed the organization of a competition in order to find an answer to the new requirements of this program. However, the new halls did not meet the needs of the traders, who "looked with nostalgia towards Istanbul and its 200,000 sqm Grand Bazaar" [5].

According to Gheorghe Vais, the big shops have now become essential components of the urban environment. They are considered to be intermediary spaces, areas for the transfer of the product from the trader to the consumer. Thus, the basic function of a store is the sale of the product and imposes a series of necessities: the supply of goods, the storage and preservation of the goods, the packaging and presentation of the goods and the delivery of the products. All these varieties of commercial spaces, are guided by certain principles regarding good operation and management. The spaces for sale also take on the role of storage areas, in order to attract the customers in the exhibition areas and at the same time to reduce the area distributed to the storage area.

Gheorghe Vais considers that small shops or boutiques are in many cases family businesses that practice a specialized trade. This category is ideally suited to the spaces on the ground floor of the buildings in the historical centers. Historically speaking, the shop is the heir to the commercial spaces of the medieval period. In the case of this category, the relationship between

the interior and the public space presented a series of changes that had an impact on the transparency of the facade. The most direct and aggressive presentation of the products was a determining factor in the success of the commercial activities.

According to Gheorghe Vais, large stores are commercial spaces with a staff of over 175 people and an area of 1,000 and 2,500 square meters. This category of stores consists of multiple shops, where the customer is not limited to a certain range of products and is invited to move freely through the space, without being pressured to buy. This will in most cases attract more customers than a shop and will not impose a barrier between the sidewalk and the inside of the store. In the case of large stores, the merchandise can be seen from very close and pinned, similar to the counters in the markets. From the point of view of the route, these categories of shops even become commercial streets, because the trader is free to organize according to his own taste the succession of the different areas.

Another category of commercial spaces, according to the statements of Gheorghe Vais, is the commercial centers. They are a group of shops arranged, created and organized according to a unitary commercial conception. This kind of space is an autonomous model, without relation to the context in which it is positioned, as it is in most cases usually located on the outskirts of cities or on the route of great roads. From a functional point of view, unlike the rest of the categories of commercial spaces, the commercial centers present a large reception space for the public and populated with leisure objects.

Commercial streets are another category mentioned by Gheorghe Vais and derive from the old stalls transformed into permanent structures. Basically, there are multiple shops with showcases and accesses on the sidewalk, located on both sides of a traffic lane. With the advent of vehicles, the chance of stopping traffic begins to diminish, and the speed of movement becomes a barrier between the plane of the window and the opposite side of the street. Due to the speed of movement, there was also pressure from merchants for pedestrianization of the streets [5].

IV. CASE STUDIES (EXAMPLES OF GOOD PRACTICE)

IV.1. Code concept – Fogia

Natasha Levy argues that the studio, Code Concept, has managed to modify the old Stockholm steam engine workshop in a imponderable way, with the aim of creating a showroom for the Swedish furniture brand, Fogia. Located in the municipality of Nacka, near the Baltic Sea, the Fogia showroom (Fig. 2) offers a number of original features, which refer to the history of the brand. The former steam engine workshop, part of a shipyard, was established in 1878. Before the whole space became a notorious place for nightclubs in the 90s, the last ship launched from the complex was It was in 1981. In order to turn the whole workshop into a sales space, the people from Fogia called on a creative agency, Code Concept, headquartered in Stockholm, with the aim of generating a space as flexible as possible and with different displays, easily mounted and disassembled.



Fig. 2. Fogia showroom [6]

The Fogia brand operates in different styles in their furniture collection, each product having its own story. This fact later became the basic idea of the entire layout, an idea that Code Concept wanted to communicate to visitors in a clear and direct way. Without making changes to the major structure, preserving the existing trim and floor finish, a series of cubicles made of metal bars, arranged under the high ceiling of the workshop, were designed. The frames were made of steel to be in tune with the exposed

metal beams of the building. These cubicles allow the styling of an environment, such as the living room, without breaking down a permanent installation several times a year and helps to present as accurately as possible the product that is to be sold. It is precisely this flexibility of the exposure mode, which facilitates the process of selling the products that are in permanent change. Behind the shop there is also a café that serves drinks and snacks to those browsing the showroom [6].

IV.2. Cun Design - 751 Fashion Buyer Shop

According to Architonic, JiuXianQiao is an area of Beijing that bears the name of the “holy island” [7] of the old factories, because it is the first space chosen for carrying out various cultural and artistic activities, among the younger generation. This project is located right in the heart of Beijing’s 751 D-Park fashion design square, which is also the largest landmark in the area. The ten tin boilers with the initial role of desulfurization, remained only simple witnesses of the development process of the complex, and the presence of rust on these objects contributes to maintaining the impasse of the industrial era. In order to soften the oppressive atmosphere brought by the old industry, a series of pieces of furniture have been designed in a way to resemble daily life, in order to balance the spatial order (Fig. 3).



Fig. 3. 751 Fashion Buyer Shop [7]

In this project, color has the role of a transmitter and helps to perceive the space. Pure white, found right in the core of the entire “show” [4], was chosen precisely to contrast with the dark

and stressful blue, chosen with the intention of being a visual attraction for customers. The main objective of this project was to respect the sign of time, the building being a symbolic entity of the urban environment, while solving the current requirements [7].

IV.3. Studio 34 South – Misterdesign

Yatzer claims that the new MisterDesign brand new retail space is located in a former car factory on the outskirts of Den Bosch, a city in the south of the Netherlands. Built in the 1930s, as a tribute to the New Objectives, an artistic movement that started from the heart of the Bauhaus and a precursor to the International Style, the building remained vacant from 2006 until a few years ago when the local government began seeking new measures to revitalize it. With an open plan and a considerable height of space, those at Studio 34 South have thought of a systematic way in which customers can intuitively browse the entire store. The new space structure features a 25-meter-long metal platform, which aims to fragment the pressing height of the factory and later become a showcase for MisterDesign brand products (Fig. 4).



Fig. 4. MisterDesign showroom [8]

Climbing the platform, customers get to be informed about the craft behind the iconic furniture pieces that had a major impact on the design evolution. The spaces for sale are styled in different ways and follow the original grid of the building. Separated by 6-meter high curtains, the areas are arranged in a way that highlights the products that are to be sold. Thus, this configuration allows the store to have a public destination and at the same time to provide

moments of privacy. The main objective of this arrangement was to reconnect the consumers with the innovation and the value of the original parts, in a most laudable and elegant way executed [8].

V. SUBJECT DESCRIPTION

The most significant stage in the history and evolution of commerce is the emergence of electronic commerce. With its genesis, through the twentieth century, the image of traditional space has changed in a way that will completely change the ambience of a space intended for commerce. According to Susan Meyer, Amazon, one of the largest online trading companies, was born in 1995 as a simple online book distributor. By 2018, the respective platform registered a “net income of over 10 billion dollars” [9], and the product range has expanded exponentially, reaching also include electronics, clothing, furniture, etc.

The response of this mutation is elementary and refers, first and foremost, to convenience and efficiency. This way of shopping allows customers, to document, examine the product and compare it in terms of price, without having restrictions on the hours of operation of a real store. The development of the Internet has been closely linked to the spread and progress of this way of shopping. In short, the more people had access to the Internet, the more interested in e-commerce.

The breadth of consumerism and the chase for products have made various social media platforms such as Facebook and Twitter become an environment through which various distributors can present their products. Within these platforms there are sections with “over 60 million active business pages” [9].

From the above, one can conclude that both current producers and those wishing to enter the labor market, cannot combat the speed and efficiency of e-commerce. The challenge of combining the virtual world of commerce, with the real one based on a more direct experience with the product and with the philosophy behind the brand, have become key elements in the current strategy of selling products. According to Juan Hildebrand [10], people who come into direct contact with the environment

of a store can be identified under two completely different categories. The first category refers to customers who in most cases know exactly what they want to buy and where to find the respective products, and the second is the category of hesitant customers who most often seek inspiration, whether it is their own purchases, whether they are gifts.

Considering the two categories of customers, the producers have come to invest in designing spaces that have a sensory and emotional impact on the buyers.

In the case of non-compliant spaces, the situation becomes a little delicate, because, in the first instance, the space does not correspond to the standard configuration of a commercial space. Elements such as stains, finishes, decorations, lighting are only part of the components that can influence the atmosphere and mood of customers in non-compliant spaces and not only. When it comes to developing a store, regardless of its configuration, it is important to identify the maximum space that can be allocated to the sale, presentation and testing of products. According to some studies, this fact is due to the simple conception that the customers have, such that a large space, brings with it a large range of products.

The placement of products in space is another essential factor in the arrangement of a commercial space. In addition to the role of visual attractor, sub-areas can be created that may have a different ambience than the general atmosphere (Fig. 5). In this way the customer is urged to further explore the store, thus making additional purchases.



Fig. 5. Schönbuch showroom [11]

How a commercial space is browsed is another factor that must be taken into account when designing a commercial space. In the opinion of many experts in the field, it is considered even the key component that underlies the proper functioning of a commercial space.

According to the statements of Gheorghe Vais, both the placement of the products in the space through the pieces of furniture, as well as the resulting route, contributes to the orientation of the clients in an undiscovered space. Regardless of the variants of organizing a commercial space, “the fluency of the entry-exposure-exit-route and the avoidance of dead spots” are important to give the customers a pleasant experience [5].

Signage is another element that contributes, in a quite large percentage, to the way a commercial space is designed (Fig. 6). A good design helps to present and market the respective product.

The continuous appearance of new products, due to the needs that are in a permanent change, but also to the trends that come and go, make the way of presenting a product and the signage to keep up with all the reforms.



Fig. 6. Camper store, New York City [12]

Lighting is another essential element when thinking of a commercial space (Fig. 7). Proper lighting can provide the customer with a good state of mind throughout the space navigation. In addition to its ability to enhance products, lighting can also be used as a way to guide customers throughout the store.

According to the new trends, the use of color in the arrangement of commercial spaces, is beginning to make its presence felt (Fig. 8). In

addition to its ability to arouse moods and capture the attention of those who travel the space, color becomes an informant in relation to the type of products sold and to which categories of customers they are addressed.



Fig. 7. Costume National, Los Angeles, indirect lighting [13]



Fig. 8. Doctor Manzana, Valencia, smartphone repair store [14]

VI. CONCLUSIONS

Starting from the principles enunciated in the previous chapters and from the examples of good practice, the placement of the various commercial spaces on the ground floor of the Cigarette Factory was taken into consideration, in order to transform the social, cultural and economic environment both in the area and in the Josephine neighborhood.

One of the major problems encountered in the case of the Cigarette Factory and not only, was that of accessibility. By adding main and secondary accesses, the factory will be able to be

opened to a large number of visitors. These addition and subtraction processes will be solved in a way that does not disturb the overall image of the historical monument.

For many commercial spaces, the presence of a dense structure, as in the case of the Cigarette Factory, can be a disadvantage in the way the interior space can be thought. However, the regular and harmonious recurrence of these elements can give rise to an imposing spatial structure (Fig. 9). The symmetry with which the space is already incorporated, can help to have a balanced arrangement of the new proposal. Besides the resistance structure, the rhythm is also found through the presence of windows and doors that punctuate the surface of the building. The articulation of the windows inside through the niches, highlights the massiveness and grandeur of the entire building (Fig. 10). Another advantage of the windows, besides the significant number, is their size, as they can be used as a series of showcases that highlight the products within the commercial spaces.

Although the ratio between the dimensions of the interior space is not one corresponding to a commercial space, the long length of the factory allows a focus on the flow and routes that may occur as a result of the arrangement of product display areas or other service areas (Fig. 11). The presence of a large inner courtyard can bring a benefit in terms of the relationship between interior and exterior.

Designing a store, regardless of its spatial proportions and the products or services it sells, is a long process that should not be neglected, as it will reflect, in most cases, the brand and philosophy behind it. The clearer the message that a manufacturer wants to express to customers, the more the store will attract a large number of customers. Both the experience that customers have in direct relation to the commercial space, as well as the methods of user-generated content and the reviews encountered mainly in online commerce, are factors that will dictate the way a space intended for commerce will be thought.

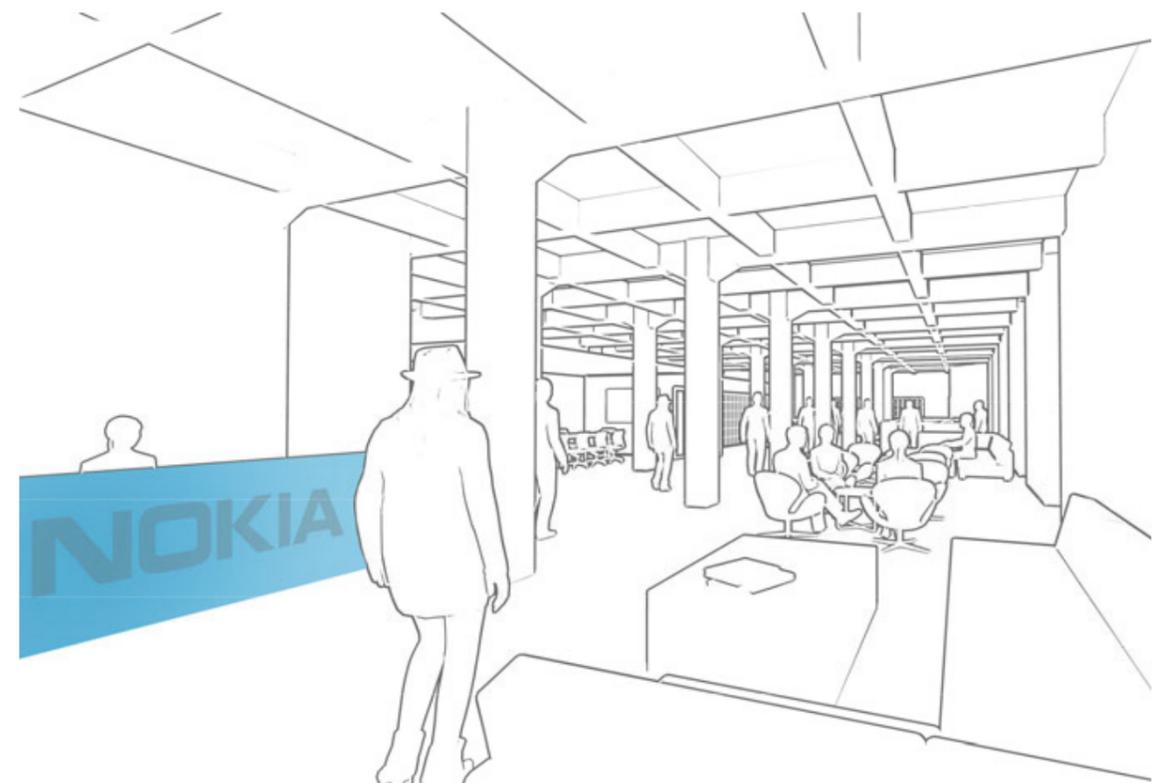


Fig. 9. Commercial space proposal, atmosphere image 1 [15]



Fig. 10. Commercial space proposal, atmosphere image 2 [15]

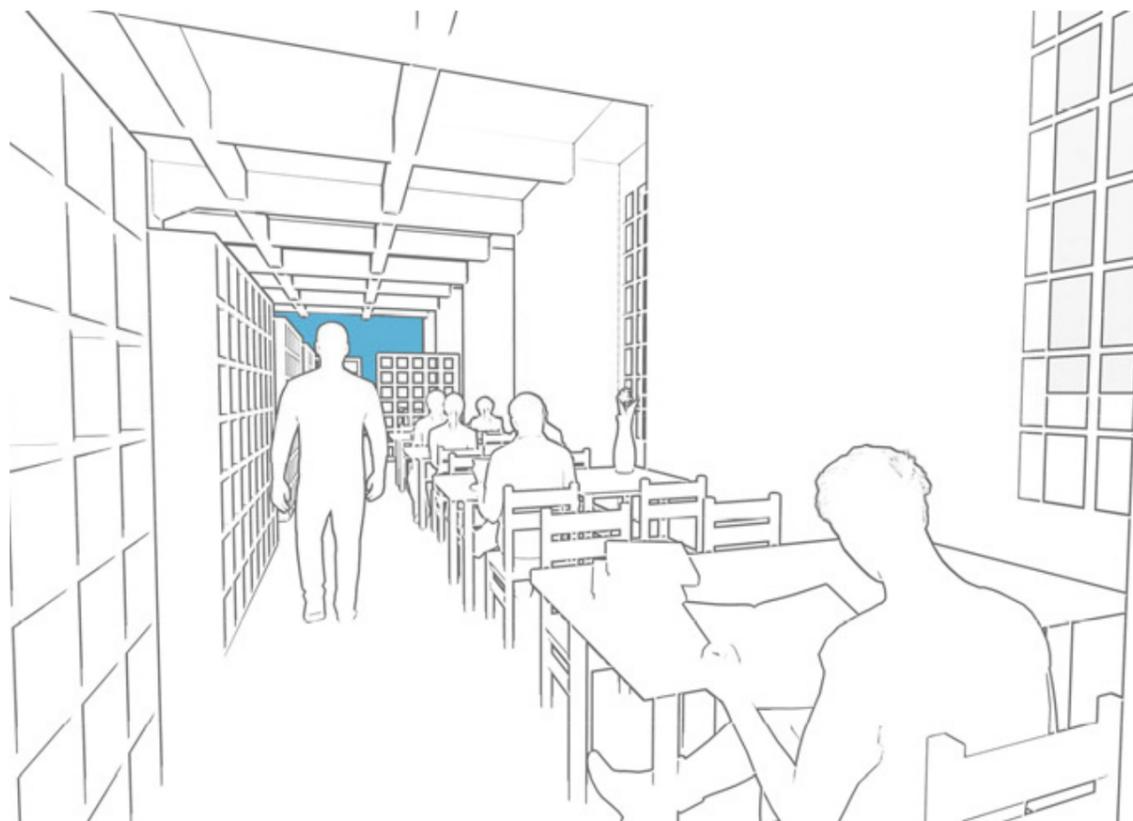


Fig. 11. Commercial space proposal, atmosphere image 3 [15]

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Preservation and heritage

Restoring the spirit of the place in the old interwar buildings, refunctionalized in the communist and post-communist period

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ABSTRACT

The paper presents an elaborate study on the refunctionalization and reintroduction of the old interwar buildings in the Banat area into the public space, preserving the spirit of the place and the old cultural, architectural and the interior design values promoted through them. At the same time, it presents a proposal of interior arrangement on the palace from Căpâlnaş. It which highlights the emblematic activities for which the palace was noted, namely the collection of butterflies and insects of Count Teleki, along with a library area and their passion for music. The main scope of the paper is to bring forward new methods of intervention on the interior spaces that highlight the existing architectural elements or bring back to life those destroyed during the communist or post-communist period.

Keywords: Mocioni-Teleki Palace, interwar, refunctionalization, communism, genius loci, architecture, restoration.

I. INTRODUCTION

The study aims to reintegrate the old interwar buildings in the public space through different cultural activities, the reason why it becomes a touristic area.

I.1. Organization of tourism in Romania

„Tourism is a sector of activity with a complex profile, full of services and activities with multiple implications in all branches of national life and, in order to evolve unitary, coherent and efficient, it needs an appropriate institutional framework.” [1] The first attempts to organize the tourist activity in our country date back to the 19th century. A number of associations, organizations or societies have emerged from private initiatives. They carry out a tourist activity on natural areas, seeking to attract as many people as possible. The tourism associations and organizations in Romania carried out their activity both before the First World War and during the period between the two wars.

“The strategy in tourism will consider the following directions of action:

- taking the organizational model from countries with experience in tourism.
- consolidating the experiences and traditions of the Romanian tourism (mountain, coastal, youth tourism, cultural circuits, rural tourism etc.) by connecting them to European and global trends and practices;
- developing and promoting tourism products with added value (eco tourism, health, conferences and congresses, cultural, etc.);
- the introduction of quality standards in the tourist activity, which become the main instrument of state control in the field of tourism;
- promoting and capitalizing on the competitive advantage of some Romanian products and services (medical, agricultural, IT, creative industries, etc.)” [1], cultural and architectural tourism (Monasteries of Moldova, Maramureş, Bran Castle, Peles Castle, etc.), in this category, can be included the case presented in this article.

I.2 Case study from Europe

There are numerous examples throughout the world, from the same category with the chosen architectural program that presents a housing

type unit villa and the old mansions that have resorted to a function conversion. Nowadays there are many mansions and noble residences that have been returned to the rightful owners and refunctionalized over time. Most of the abandoned buildings were noble residences that belonged to wealthy, having large properties and many land areas. Thereby, the study presents a special attention both to the architectural specificity of the analyzed noble buildings, their history, and the genealogy of aristocratic families, their origin, the aesthetics of the dendrological parks and the architectural details found inside the castles and mansions.

An example of a mansion that has used a function conversion is Villa Maser in the city of Veneto, Italy (Fig. 1). It was built around 1550 by the architect Andrea Palladio in order to host the agricultural estate of the noble Venetian brothers Daniele and Marcantonio Barbaro. After their death, the villa comes into the possession of other families, following in 1850 to be acquired by SanteGiacomelli, who began to renovate the property. Following that, in 1934, Count Giuseppe Volpi, the founder of the Venice Film Festival, bought the villa for his daughter. The building has undergone many changes over time, both architecturally and functionally.

Thereby, the new functions were difficult to adapt because it was made to have only one role, namely residence. Nowadays the villa is inhabited by the descendants of the family, while also having a tourist area that presents both an impressive collection of carriages and a rich collection of frescoes. The space also hosts numerous temporary exhibitions from the biennial of art and architecture.

The interiors give a great importance both to the exhibition spaces, which is why the pieces of furniture are present in the second plane, in a minimalist form but adapted to the period, as well as the architectural elements that are highlighted through the chromatic range.

Another example of a residential villa that has undergone transformations over time from a functional point of view is Villa Cornaro, located in Veneto, Italy (Fig. 2).

This villa was designed by the Italian Renaissance architect Andrea Palladio between 1553

and 1554. In 1969 the villa was purchased by Richard Rush at an Italian government dedicated to the preservation of national monuments in Italy in the city of Veneto. He, together with his wife, Iulia, restored the villa using a functional conversion over the rooms, over a period of 20 years, which is why they furnished it with antiques and made it known to the public, assigning it as a tourist point.

In 1996 the villa was preserved as part of the world heritage "Vicenza City and Palladian Villas of Veneto" [2]. Currently, it does not have any function.



Fig. 1. Villa Maser, Veneto, Italy 2018 [2]



Fig. 2. Villa Cornaro, Veneto, Italy 2018 [3]

II. THE REFUNCTIONALIZATION OF THE OLD MANSIONS FROM THE COMMUNIST AND POST-COMMUNIST PERIOD IN BANAT

Numerous interwar buildings in the Banat area have been abandoned, left in decay, although they have both historical and architectural value, many of them being included in the list of historical monuments. Some of them resorted to a conversion of the function, but unfortunately, the chosen functions did not capitalize on the initial cultural wealth and often the architecture

and interior design of the buildings have undergone irreversible changes. Although the Banat area presents many buildings with impressive stories and important historical values, these often end up being abandoned and left to decay. Within the project "Forgotten Monuments in Banat, 118 noble residences were identified, of which about 60 have stood the test of time. Only half of them have retained their architectural value, the others undergoing major transformations being in a state of degradation that makes them irrecoverable.

Among the mansions that still stand out we have the one from Folea locality (Fig. 3). Having a private property, it appears on the map of the 31 mansions and castles in Timiș County, prepared by the Association for the Promotion and Development of Tourism, with the support of the Cultural Association of Ariergarda" [4].

The mansion has been in its present form since 1905, being built on the site of an old residence, destroyed in a fire. "The owner was the noble Georg Beniczky, who gave the construction the name of his wife, Antonia, a beautiful and rich heir from a wealthy family" [4]. The architect of the manor was Laszlo Szekely, known as the creator of several emblematic buildings of Timișoara such as: Neptun Spas, Decebal Bridge, Saint Mary statue, Water Plant and the Chamber of Commerce and Agriculture.



Fig. 3. Folea Mansion, 2010 [5]

"After nationalization, the manor came to be placed in a shade where it gradually deteriorated over time. It was returned to the family after 1989, and is currently owned by a private company." [6].

Another example of a mansion that has an impressive value and was abandoned is the Kloboski Mansion (Fig. 4). It is located in the village of Gurasada, in the county of Hunedoara

and dates back to the 18th century. The building belonged to the Klobosisky noble family, but after their death, the mansion came into the possession of Benedect Lajor. During the war, a large part of the noble families settled in Hungary. Thereby the manor was transformed by the Communists into the IAS, following as later into an agricultural research center. Currently, it does not have any function, but it has major degradation problems.



Fig. 4. Kloboski Mansion, 2010 [7]

Also, the Wekerle-Petala Mansion is a historical monument building that is currently left in decay (Fig. 5). It was bought in 1826 by Janics István, and later sold, in 1838, to the Zombori family, who will divide it to the three heirs: Beniczky Miklós, Nyéki Antal and Onossy Mátyás. The construction was built in 1840 by Nyeky Antal, in rural baroque style, being remade at the end of the 19th century in neoclassical style. After the Great Union of 1918, the manor became the property of General Vintilă Petala, who lived in the manor until 1951. In the 1990s, the manor was returned to the great-granddaughter of the general Marie-Rose Mociornița, who sold it to Erina's family. Nowadays this is the property of SC Quintino Agriculture.



Fig. 5. Wekerle-Petala Mansion, 2010 [6]

The next example that used a conversion over time is Manasz Mansion in Hodoni, which cur-

rently has a function open to the public (Fig. 6). Being a building with an impressive history, the new owners decided to restore the building, which is why they tried to restore the atmosphere of the mansion from another time, by preserving the architectural elements, the few pieces of furniture found and the lighting fixtures from that period. At the same time, the modality of intervention on the building is a modern one, focusing on the original elements of that period. Thereby, the modern interventions succeed in highlighting both the elements and the decorations.



Fig. 6. Manasz Mansion, 2012 [8]

Like other historical buildings, the Manasz area of Hodonihides has an impressive story. This is a representative ensemble for the rural landscape and the history of Banat. It was built in the first half of the 19th century; the ensemble includes a small neoclassical mansion, administrative units and a park. The building is representative for the small mansions of Banat, the neoclassical style being adopted and propagated in the era and region of the small and medium nobility. "In 2004, when it was returned, the ensemble was in an advanced state of degradation.

The buildings and the park had been abandoned in the post-1989 period and left in decay" [9]. The new owners decided to restore the mansion and, with minimal intervention, the ensemble was transformed into an event center, becoming an example of good practices regarding the valorization of the Banat noble assemblies.

It is treated both indoors and outdoors with clean surfaces that let the materials speak for themselves, thereby managing to tell their story by their unique form. Also, the few remaining pieces of furniture are harnessed, which is why they are highlighted alongside the luminaires that are still found inside.

III. WAYS AND METHODS OF RESEARCH

The paper illustrates a documentary study regarding the old palaces and abandoned mansions in the Banat area. It presents methods of refunctioning and reintegration of buildings in the public space through different techniques and ways. Moreover, there is presented both a larger study on the Mocioni-Teleki palace and the Mocioni family, from their origins to the present, as well as the way of its reconfiguration by changing the current function and reconfiguring the interior spaces. Over time, the palace has undergone many changes both at the functional level and at the architectural level, which is why new methods of spatial organization have been implemented that correspond to the new functions of the palace. Thereby, the research is based on restoring the spirit of the place of the palace through a tourist area having a villa type housing unit that presents on the ground floor different activities and cultural events, using the emblematic elements for which the palace was noted, namely the collection of exotic butterflies and insects, next to the valuable library of Count Teleki and also of the family's passion for music, especially for piano. This study presents some of the documentation made on the Mocioni family and the Căpâlnaş palace. The study starts from the origins of the family, of the residences held by them in the Banat area, until now.

III.1. Historic context

The Căpâlnaş estate came into the possession of the Mocioni family around 1853, when it was purchased by Ioan Mocioni de Foen from the Zichy family. The palace will be built between 1876-1879, under the leadership of his daughter Ecaterina Mocioni and her husband, Mihai Mocioni. The plans of the palace were made in 1867 by the Viennese architect Otto Wagner, and the execution of the works was carried out by the architect Kallina Mór. The property was later inherited by the sons of Mihai and Ecaterina Mocioni, Eugen and Alexandru Mocioni. Later it would be given to Eugen Mocioni, his wife, Therezia Horvath and their five children, while his brother, Alexander, will reside in the palace in Birchiş. Being passionate about classical music, Eugen and Alexandru Mocioni orga-

nized numerous musical events in the residence of Căpâlnaş. Theodor Botiş, the author of the Monograph of the Mocioni family, recalls in his book, one of the events in which he took part. This describes the atmosphere played by the family members at the musical concerts: "In the castle of Căpâlnaş, where Eugen Mocioni's family lived, the daily and almost unique entertainment was music. In the days of reception, real concerts of classical music were performed, using the two living room pianos. But the concerts received an artistic brilliance mainly due to the owner of the house, Therezia Mocioni, whose beautifully colored and well cultivated voice captivates the guests" [6].

Count Teleki died in 1947 and was buried in the palace park, next to his daughter. With the advent of the communist regime, the whole area was nationalized, which is why it is forbidden for family members to visit the area. Both the furniture pieces and the palace library and the butterfly and insect collection of the count were destroyed. "Thus, the palace was emptied and transformed into a preventive TB for children, and afterwards it was transformed into a psychiatric hospital, retaining its function to present" [10].

III.2 Residences held by the Mocioni family

The Mocioni family owned a total of five properties in the Banat area, the second in size after the Palace from Căpâlnaş, is the one from Bulci village, Bata commune, Arad County located only a few kilometers from Căpâlnaş village. The building was built in the first half of the 19th century, and at present, it does not have a function. Also in the Banat area, the family owned the castle in Birchiş, which belonged to Alexandru Mocioni. It was located in the commune of Birchiş in Arad County, near the village of Căpâlnaş in a place called "Dâmbul Bughii" [11], found on the edge of the forest in Birchiş. Around 1944 the castle was burned down. Another residence that belonged to the family is the Mansion from Foeni, this being one of the oldest buildings in Banat. The building is located in Foeni commune in Timiș County. It was built in 1750 and belonged to Andrei Mocioni de Foen, the great-grandfather of the Aroma-

nian priest Constantin. Currently, the mansion is used as a restaurant and is dedicated to the public, which is why they created a space dedicated to the memory of the Mocioni family. The last residence that belonged to the family is the Castle of Vlaicovăţ, which is located in the Serbian Banat, a few kilometers from the city of Vârşeţ. It was built in 1859, and at present the complex belongs to the state, having no function.

III.3. Description of the Mocioni – Teleki palace

The silhouette of the palace has a square plan, with a basement, two floors and a hidden frame. The volume of the building is thought in a manner characteristic of the time, being compact and imposing, but not without grace due to its classical architectural elements. From a compositional point of view, each facade is treated symmetrically, which is why it keeps the same rhythm on the whole surface, while also being divided into three distinct horizontal registers. At the bottom of the building the register of the pedestal can be read, well contoured and highlighted, it gives rise to a large terrace on the main facade. The intermediate level is marked by the hollows of windows that grow vertically, being oversized and imposing, they accentuate the height of the edifice. Following that, at the upper level, the hollows of the windows are reduced on a smaller scale, marking the main access area. At the same time, we notice a register composed of the articulation of the cornice with the level of the string of balusters that mask the construction coating. The main facade is intended for the public, which is why it is richer ornamented, being more imposing due to the four huge columns, with Corinthian capitals. At the same time, the main facade is in contact with the wide access terrace that benefits from two monumental semicircular stairs, which deeply mark the access. The secondary facade from the park is a private area for the family, reason why it is treated differently from the main facade. This is highlighted by a classic pediment supported by two columns and the lack of excessive ornamentation. The side facades are not richly ornamented, but they are slightly withdrawn, which is why attention isn't required on them. The hollows of the doors are treated equal to

that of the windows of the ground floor, thus they contribute to finishing the composition, softening from the robustness of the pedestal. One of the most important elements that adds an artistic value to the monument is the decoration.

III.4. Similarities and differences between the Mocioni - Teleki Palace and the little trianon in Versailles

The building was designed by the Viennese architect Otto Wagner between 1876-1879. It was inspired by the Little Trianon of Versailles. Both buildings are located on a large surface of natural land, surrounded by an extended green space, which is why a direct connection with nature is desired.

At the same time, the two buildings benefit from a park that is divided into two zones, namely an area for the public and a private area (Fig. 7).

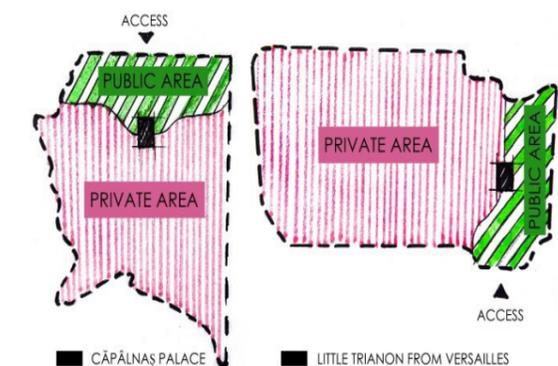


Fig. 7. The public and private areas of the two buildings

At the architectural level the buildings have some similarities, Otto Wagner wanted to take over some of the essential elements of the style during that period. Both buildings have a square plan, in which the facades have a symmetry for the windows and doors hollows. At the same time, the facades are treated differently, which is why its desired a special emphasis on the main facade that is intended for the public and on the secondary facade that includes the private area (Fig. 8).

Thus, the side facades represent a transition zone between the two accesses, these being less ornate. Although both buildings have the

same symmetry and rhythm on the facades, Otto Wagner decides to approach the vertical surfaces of the palace from Căpâlnaș differently to the Little Trianon, which illustrates a massive and imposing volume. They become much more sinuous and at the same time manage to completely outline the silhouette of the palace, illustrating an imposing volume and full of nobility (Fig. 9). The height of the buildings differs, but the hollows of the windows and the access areas of the two buildings are treated in a compositional way. Also, the ornaments that are present on the two buildings emphasize the hollows of windows and doors.

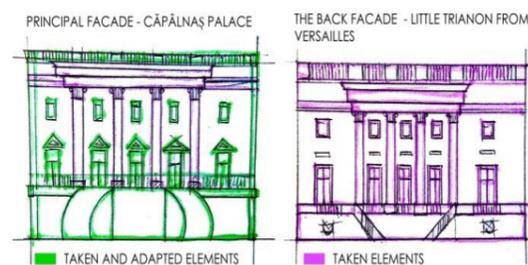


Fig. 8. Elements taken over the main facade

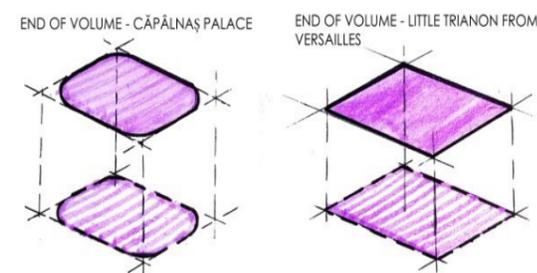


Fig. 9. The endings of the two volumes

At the same time, they mark the main access areas by the presence of four columns, made of natural stone with Corinthian capital, which are resting on the top of the pediment that comes out. Moreover, the completion at the upper level is noticeable on both buildings with a register composed of cornice joints with the level of the row of balusters that mask the construction coating. At the main access level, both buildings have a transition zone through the presence of external terraces. These differ in composition, because the building at the Versailles palace has two access stairs face to face, which is why

it is not fully open to the public, compared to the Palace in Căpâlnaș where the stairs invite the visitor to explore the interior (Fig. 10). Otto Wagner wanted to integrate in his work one of his pre-stages, which invites the visitor into the spaces through a road. Thus, Otto Wagner prepares this stage by illustrating two large curved, imposing and graceful stairs placed facing the public.

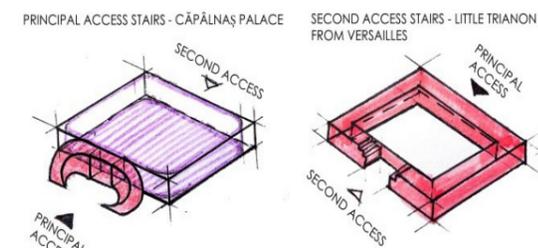


Fig. 10. The access zone

III.5. THE INTERIOR DESCRIPTION OF THE MOCIONI – TELEKI PALACE

From the point of view of the treatment of the interior, in the communist period, a special attention was paid to the details. Thereby we can notice the chromatic range, the finishes found, the quality of the materials used, the decorative elements and the plastic subtlety of the accessories. The color range is a warm one, thereby they want to create a sense of warmth and familiarity. The decoration on the walls is much more lush than the outside one because it presents various stuccoes, but in some rooms, there is the color palette from the outside, associated with the finish of the floor mosaic from the main entrance halls. These are much more numerous, more subtle and better treated.

The compositional principle of the field of walls cites the one from the outside, with three horizontal registers:

- THE FIRST register, the lower one, is marked by the plinth and the base of the pilasters.
- THE SECOND register, the middle one, benefits from a neutral field from which the frames of holes and pilasters are highlighted.
- THIRD register, the upper one defined by a cornice that joins the wall with the ceiling.

The ceiling is simple, with decoration only at the starting point of the luminaires. Also, there are

some original luminaires in the space, from that period. At the same time there is a part of solid wood furniture and fireplaces that are still preserved, which attest the noble image from its peak era. The emphasis on details is focused on the doors, the vertical circulation and the first illuminator that is found on the ground floor of the building. They contain profiled and carved elements of solid wood.

III.6. INTERVENTIONS CARRIED OVER THE TIME INSIDE THE PALACE

Over time, the palace has undergone many changes, both aesthetically and functionally. The palace was designed with the role of a noble residence, but after the coming of communism, it was transformed into a psychiatric hospital. After the fall of communism, the palace retained its function of hospital, and later it became a restaurant.

Thereby, the spatial organization had to be modelled for the purpose of the architectural program that it has at present. The interventions made in the rooms of the palace during the communist period are major, so they are found in every room inside the palace. Many of the interior ornaments disappeared with the change of the function of the palace, both the pieces of furniture and some lighting fixtures,

but at the same time, the most precious space was preserved, namely, the library area. The color range was changed throughout the palace after the communism period in green and beige shades, which is why it was wanted to emphasize the new function (Fig. 11).

Although the changes were major, some ornamentation elements were kept, such as the decorative element on the ceiling, where the luminaires are placed, the luminaires in the main rooms and the wood that is the most precious material inside. It can be found both at the level of the door hollows, next to the first illuminator that is located above the library area as well as next to the vertical circulation that connects the ground floor to the first floor.

After the renovation of the palace, it lost its brilliance again because the architectural elements that remain inside are not highlighted as they were in the past. At the same time, the wood was kept indoors, in natural hues along with some original luminaires.

At the ceiling level, the cornice that is presented on several levels is not fully accentuated, while the ornaments that are centrally found on the ceiling are not highlighted. The color range used in the rooms is taken from the outside, which is why a connection is created between the two (Fig. 12).

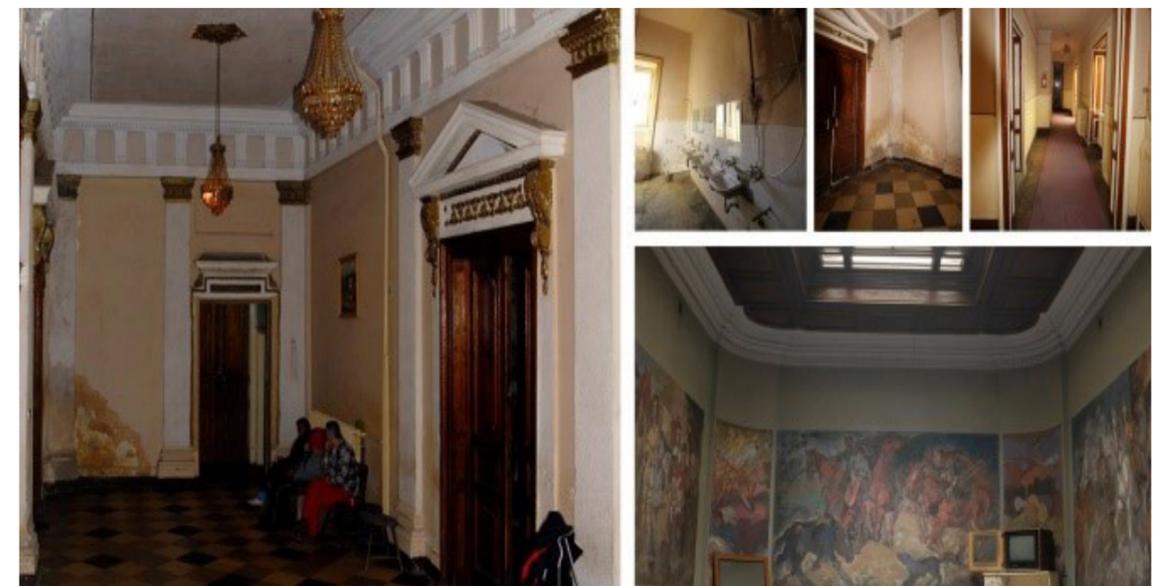


Fig. 11. Interior pictures from the Mocioni-Teleki Palace, 2010 and 2011, Photo: I.Oprescu



Fig. 12. Interior pictures from Mocioni-Teleki Palace, after renovation, Photo: C. Butuşan

IV. RESULT AND DISCUSSION

In this paper is presented the strategy of the study. At the same time, the proposal of arrangement in relation to the edifice is illustrated, the way in which the new function of the space was born and at the same time the new vision of the interior spaces. The building was serving as a residence and public space at the same time, as well as bedrooms, a kitchen in the semi-basement of the building, a small pharmacy, and impressive library of rare volumes and a huge collection of exotic insects and butterflies that were located on the first floor, which is why it became one of the buildings featured in the book "Between The Woods And The Water" by the famous British traveler Patrick Leigh Fermor. Currently, the palace houses a private psychiatric hospital. In this project will resort to a conversion of the function, which is why the goal is to restore the building to life by presenting its impressive story. Thereby, the presented proposal wants to become again a public area, a tourist area where access is allowed to all. At the same time, through this public space, it is wanted to restore the brightness of the place from another time by creating numerous activities that will take place both indoors and outdoors. Also, the plan is to send the people who will step inside back in time, to live that epoch fully and at the same time to become acquainted with the pas-

sions of the owners. Thereby, it will reintegrate their passions inside the building, both the impressive collection of exotic insects and butterflies, an exhibition of musical instruments and a library in the memory of the Mocioni family, reminiscent of the old rare book library of Count Teleki. At the same time, it is being pursued to highlight the remaining important architectural elements, which is why highlighting the two illuminators that are in the center of the building is wanted. The chosen architectural program presents a villa type housing unit, which aims to restore the spirit of the place and the value of the palace through the elements for which it was noted. Therefore: SEMI-BASEMENT - has a restaurant area GROUND FLOOR - presents an exhibition space in which different cultural events are present 1ST FLOOR - has sleeping rooms (Fig. 13) The ground floor level has cultural events, which is why it hosts an event room, a library area along with a reading area, an interactive exhibition of butterflies and insects and an interactive exhibition of musical instruments. The proposal aims to create interactive events in which people can have a unique experience. This will be done through new technology, electronic devices that will allow you to explore and analyze in detail each element (Fig. 14.1).

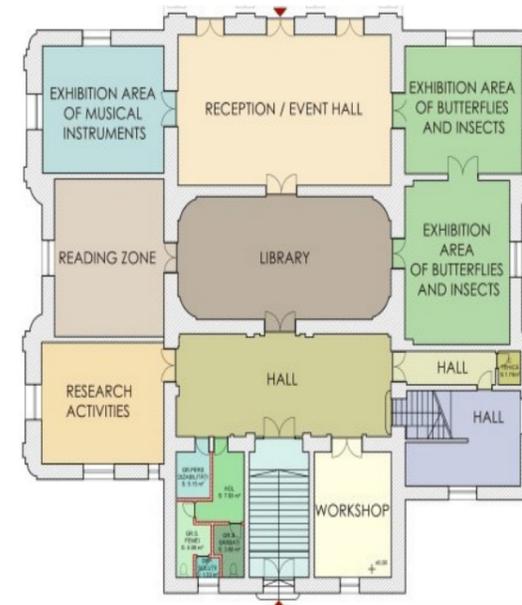


Fig. 13. Partitioning plan – Ground floor and 1st Floor

At the same time, the 1st floor plan illustrates the sleeping areas, and the area marked with red presents the surface that is analyzed. Thereby the new interventions will be clear, well defined and at the same time capable of creating their structure.

With the change of the function of the space, it brings with it a series of changes in the organization of the rooms, the finishing materials and the chromatic range. Thereby, the proposal wants both the materials used inside and the collection of butterflies and insects to be present inside, creating a whole fairy tale show, which is why it is wanted for them to become the main characters that invite and guide the visitor into the area, presenting you each part of the interior. The purpose of the arrangement is to restore the moments of brightness by introducing modern elements of reflection and mirroring. At the same time to keep the vintage theme of the building, which is why the furniture pieces will be in correspondence with it, also it is pursued to highlight both the original ornamentation elements and the luminaires that are present from the beginning. Moreover, the interventions proposed inside will have a fine and proper structure, so as not to affect the basic structure of the building, reason why the furniture pieces will present a composition (Fig. 14.2). Thereby, the proposal creates a space in which the concept of the theme starts from the basis of two essential elements, namely the nature and the collection of exotic butterflies and insects of Count Teleki. Also, special attention will be paid to the dendrological park, reason why it will be valued through an environmental arrangement in which the tree species will be highlighted. At the same time, the park will benefit from the public's attention both through its exploration and through the research activities that will take place outside.

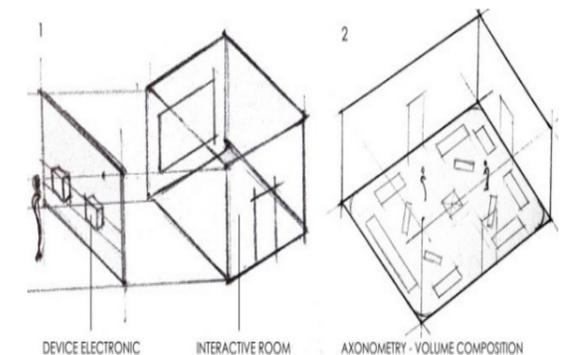


Fig. 14.1. Electronic panels and interactive room; 14.2. Axonometry - volume composition

V. CONCLUSIONS

The study of this topic aimed to reintroduce the old interwar buildings into the public space through tourist areas that convey the emotion of the place by presenting the stories that were once alive. As a result of this study, some improvements can be made to the palace from Căpâlnaş in relation to the function proposed in the space. The function proposed in the space is that of housing, which is why one of the improvements brought to Căpâlnaş Palace is on the interior spaces, by reconfiguring the spatial organization. Organizing the palace presents a reconfiguration of the spaces in order to have a more free and easy flow for walking, for the people who walk inside, and for the staff that must be exempted from a lot of walking. At the same time, a special treatment is proposed on the accesses of the main building from the ground floor, as these are the first rooms that have contact with the outside world and at the same time have different original decorations. Moreover, another area that is important and wants to be emphasized is the space in the center of the ground floor that rises on two levels, having two natural illuminators that shape the room and at the same time creates interesting games of shadow and light. Another element that this study wants to propose in the space would be the complete reconfiguration of the basement which currently has a kitchen, a dining area, two offices, a laundry room, a dedicated staff area and some storage areas. Although the current function of the building is being converted, the semi-basement remains with the same attributions of restaurant, which is why the flow must be rethought and reintegrated inside. The documentation shows that the most important element in the intervention of the historical buildings is the study on them, the historical research, the origin of the building and the members of the family, at the same time the attention to the architectural details. Also, the two important elements of this process are attributed to the function and the spatial organization that have the role of establishing the working areas, the places in which the activity is to be carried out and at the same time the positioning of the activities, the working areas other

important elements that underlie the project is the interior design in which materials have to be carefully chosen so that they correspond to the edifice, to the finishes, the chromatic range, the pieces of furniture, the artificial lighting and the natural lighting, all these must be integrated inside, keeping a balance between them.

VI. ACKNOWLEDGEMENT

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The Bezdin church, technologies used in restoration

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ABSTRACT

The creative spirit of mankind emerged at the dawn of its birth and has evolved over time. The effect of this synergy is a high degree of cultural-artistic representation specific to each civilization. Therefore, this collective inheritance can be seen as a living and dynamic part of human settlements, contributing to their local identity and cultural wealth, being concurrently a factor of historical and spatial continuity in the narrative of time.

The concept of heritage and the operation of enhancing its qualities are closely related from a chronological point of view. Shortly after defining the first one, the action of its validity came as an economic opportunity, setting in motion a general awareness towards the preservation of historical, aesthetic values of cultural relevance.

However, this heritage has experienced constant deformation throughout history due to deteriorations and disasters caused by natural and anthropic factors. In this sense, it is often under threat from environmental conditions, physical instability, under-funding, or increased tourism and development. Such a condition asks for systematic management of response to the constant changes, creating a need for the acquisition of geospatial information based on numeric data. Due to the complexity of the nature surrounding a historical monument, a more precise perspective on the process of preservation can only be acquired through an increased level of exact detailed information.

Therefore, the use of three-dimensional (3D) scanning technology comes as a response to this problem, being a modern and reliable method in the digitalization of information. Nowadays, surveying methods like 3D laser scanning compiles accurate, complex and realistic 3D models, as well as their settings that depict their historical periods. This method creates a 3D model from recorded data, that is a mathematical representation similar to the physical reference with a millimetric precision. This is why the use of three-dimensional coordinate data for a variety of analysis has recently assisted in the conservation and management of cultural heritage sites and monuments. Three-dimensional scanning is a representative documentation technology, allowing specialists to monitor the behavior of the object in question over time.

The objective of this essay is to reveal the benefits of 3D laser scanning in relation to the preservation of heritage, with the specific application of its use on the church in the Bezdin monastery. This monument is a testimony of the local Serbian community in the west of Transylvania, serving as an eloquent example of architecture specific to this region.

Keywords: heritage, monument, restoration, technology, 3D scanning.

I. INTRODUCTION

I.1. Definition and Importance of Heritage

The concept of “monument” does not refer only to individual architectural objects, but also groups of buildings and sites. In this regard, the Venice Charter (1964), referring to the preservation and restoration of historical monuments, gave a broader meaning to the notion of monument by introducing new terms, in its “Definitions” chapter as well as in the “Convention concerning the Protection of the World Cultural and Natural Heritage”. An exact meaning of cultural heritage can be found along with its importance in relation to societies:

“Article 1. The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time.” [1].

Cultural Heritage can be defined as monuments, buildings, or landscapes of “outstanding universal value from the point of view of history, art or science.” [2].

I.2. The Bezdin Monastery – Geographical and Historical Context

The monastery consists of the following monuments: “The Assumption of the Virgin Mary” church (LMI code AR-II-m-A-00632.01) and the hermitage enclosure for the monks (LMI code AR-II-m-A-00632.02) [3].

This site is located in the west of Romania, in the county of Arad, on the southern bank of river Mureș, near the town of Pecica. Bezdin monastery is 36km west of Arad, 67km from Timisoara and 150km from Oradea.

The landscape in which the Bezdin monastery was built is now part of the protected area of the “Lunca Mureșului” Natural Park, which stretches over an area of 17,455 hectares along the Mureș River at the border with Hungary. It is classified as a natural park of national importance [4].

From a historical perspective, the Bezdin monastery was initially built as a fortress, and it was

first recorded in the year 1233 [5] (Fig. 1). The most intense periods of development occurred during the eighteenth century, featuring the building of the “pronaos” and bell tower, along with the eastern extension of the monastery. It also included carpentry works, and in the nineteenth century the replacement of the roof and tower coverings. The corridors of the hermitage from the south were paved with marble slabs, and in the last half of the twentieth century there was a series of restoration works [6].

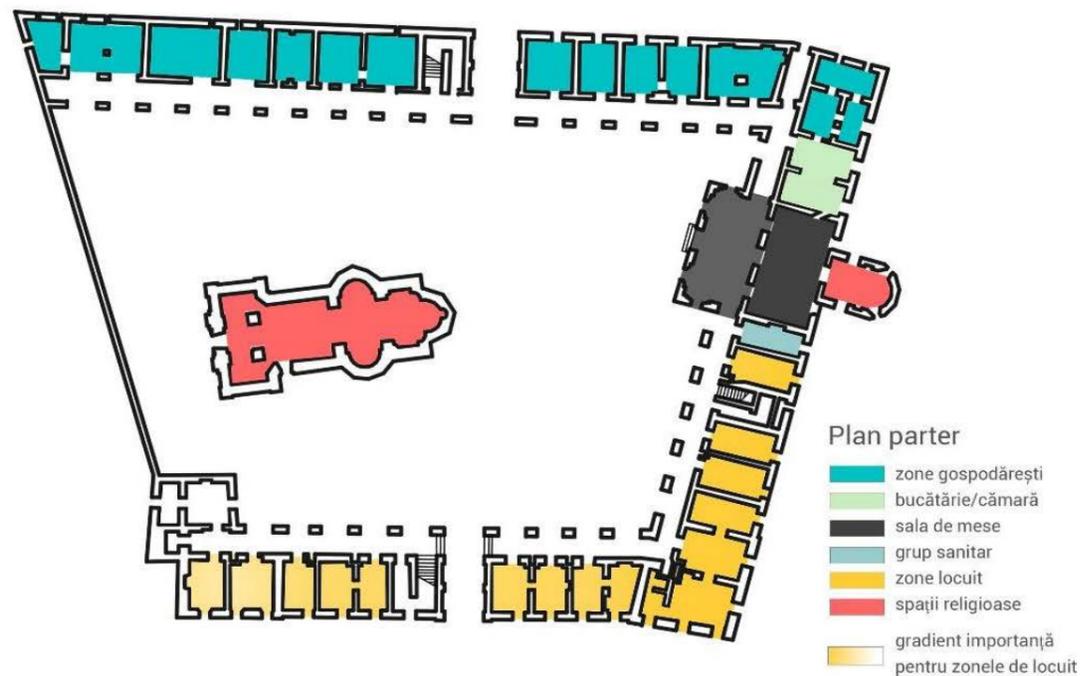


Fig. 1. First painting of Bezdin monastery

II. MONASTIC FUNCTIONAL ORGANIZATION

In its current state, the monastery can be illustrated by a three-sided building. The church is slightly shifted towards the south-west of the center of the courtyard (Fig. 2). By the end of the eighteenth century, the southern wing which was built on two levels had a symmetrical composition, consisting of a central entrance supported by two lateral risers. The interior areas are larger than those usually found in hermitages. The eastern side of the main wing was the abbot’s living area, built with large interconnecting rooms. The northern wing of the monastery was also part of the living area and is built on a single level. There were cloisters opening towards the courtyard. There were also different types of barns and workshops, a smoking-house with a pyramid-shaped ceiling, and other zones that were needed to satisfy the monastery’s needs.

Organizarea funcțională a ansamblului - Parter



Organizarea funcțională a ansamblului - Etaj

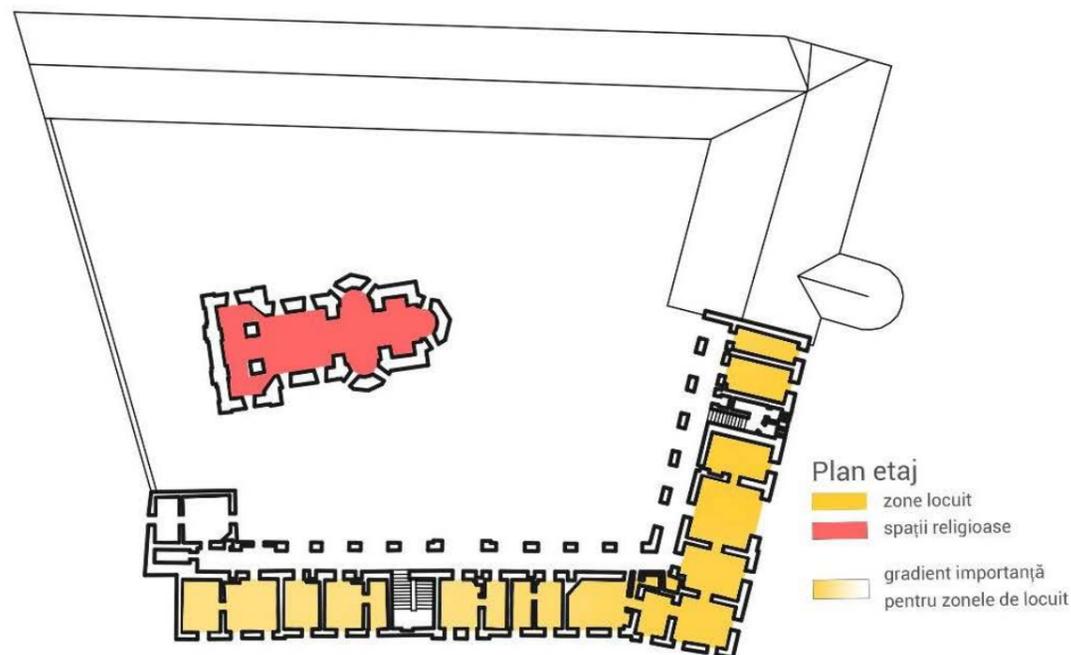


Fig. 2. Functional organization of the monastery

III. RESEARCH METHODOLOGY

The research began by understanding the historical and cultural importance of the church building, complementary to its role in relation to the whole monastery. The next phase was the analysis of the construction materials and techniques used, followed by the documentation of the developments and extensions throughout time.

This implied a visual investigation, through a survey of the undertaken construction, its degradation and its surrounding topography. A 3D scanning (laser scanning) was made, along with archive and publication research and several discussions with the custodian and beneficiaries. An exhaustive, visual and mechanical analysis of the surfaces of the entire monument was made, resulting in the identification of all the pieces that should undergo restoration. An essential element in this process has definitely been the 3D scanning technology, which allowed for the digital archiving of the monument, without making an impact on the object's physical integrity. This method plays a key role in the process of further maintenance and monitoring.

IV. USE OF 3D SCANNING TECHNOLOGY

Nowadays, several methods are being used for the surveying, documentation and quantification of cultural and architectural heritage sites. The documentation in the surveying studies of either a particular structure or a site, using digital imaging or three-dimensional laser scanning devices is an emerging technique in this field. The data acquired from these scanning devices results in a very complex vector image which consists of millions of points, forming a point cloud. In this image, all the curves and surfaces transform into visible lines making them possible to be observed. The beam sent from the laser scanning device reflects on objects or surfaces and returns as millions of data points to the computer where it can be seen as an object formed by the point cloud [7]. As each point in the image has its own coordinate value, the lines formed by these points can be manipulated to produce digital illustrations. This representation can register the actual size of the analyzed object, which is processed in a short period of time. This point

cloud system has 3D-referenced coordinates (x, y, z values), allowing the direct visualization in different types of software. Virtual copies of the studied object can be rapidly produced with a high accuracy rate and millimetric precision [8]. The scale of the detail to be drawn is directly related to the density ratio of the laser beams being reflected on the structure [7].

This facilitates the scanning of particular details of historical buildings, such as column caps on the facade, relief, decorations, and carvings.

V. IMPACT OF 3D SCANNING TECHNOLOGY

V.1. Usage of Data

The result of using the 3D laser scanning technology is a digital copy of the Bezdin church (Fig. 3, 4). This process revealed a variety of benefits, the most important being the significant time and cost savings when compared to traditional survey methods. The gathered data can be recorded for further processing in the office, with varying degrees of detail for future planning in digital programs. It can be applied both in recording and monitoring damage, creating a timeline of the building's evolution.

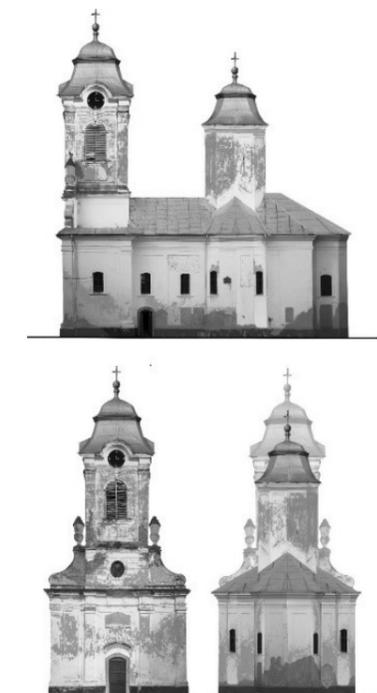


Fig. 3. 3D laser scanning of Bezdin church – façades

The 3D scanning of Bezdin church was made on cross-sections, as well as at the façade level, revealing the current state of the building: from the structural system to the iconostasis. This allowed for precise identification of the degradation process, contributing to finding solutions in a shorter period of time.

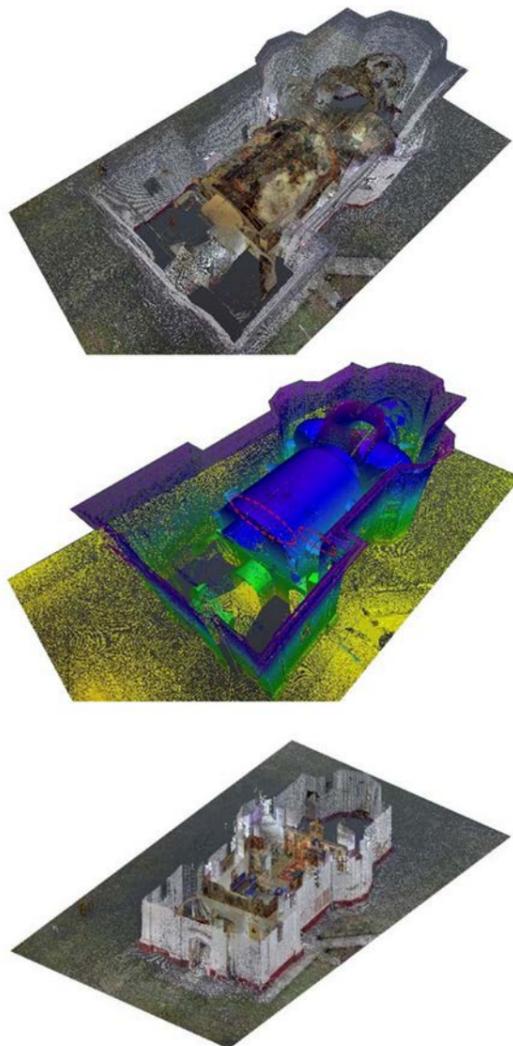


Fig. 4. 3D laser scanning of Bezdin church – cross-section

V.2. Structural Consolidation Solutions

From a structural point of view, both the porch and the “naos” tower will be consolidated. The porch tower has a major dislocation on the side facing the central nave. This problem will be solved through a system of flexible suspension

cables, trapped in dynamometric pre-tensioning rollers anchored at the top of the central nave. On the west side of the tower, the suspension cables will be (chemically) grounded in the masonry. This will be performed through drillings made in the masonry and cemented on an inclined plane, leaving a ring for the grounding of the elastic suspension cables. Similarly, the cylindrical vault of the central nave will be consolidated with the same system of flexible suspension cables, trapped in dynamometric pre-tensioning rollers (Fig. 5). In order to restore the initial volume of the roof covering, the image of the two towers will be adapted according to existing photo documentation.

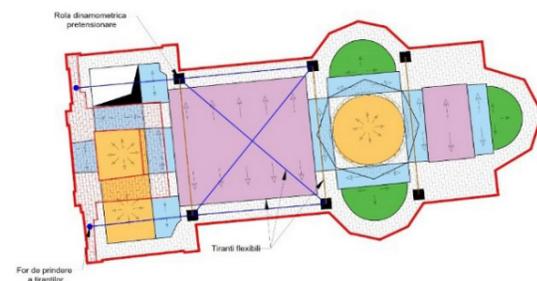


Fig. 5. System of flexible suspension cables

VI. POTENTIAL OF 3D SCANNING TECHNOLOGY

This method greatly improves the quality of the planning and execution stages, while also giving the possibility to monitor the project by performing successive scanning, as it can be found in similar case studies [9,10].

The digital image of the monument contributes to the conservation and protection of national heritage, having the potential of stimulating tourism in the area with exciting presentations, such as virtual reality or holograms.

Ultimately, a virtual 3D museum can be obtained by the centralization of such digital technology.

VII. CONCLUSIONS

The article describes the application of 3D laser scanning in the survey of the Bezdin church, a church recognized as national heritage. The building and the survey method are presented and analyzed, highlighting the benefits of this technology. The results of the research are important in raising awareness of the potential of

this emerging technology. Therefore, 3D laser scanning helps specialists restore and monitor historical monuments with very good accuracy and in a shorter time compared to previous methods of survey.

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Urban design and planning

The role of blue-green infrastructure in redefining the identity of a shrinking city - Hunedoara

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ABSTRACT

Human settlements represent hybrid environments that resulted through complex interaction processes. Components of the natural environment, vegetation, water or fauna have been integrated into urban structures during the history, but accelerated and often chaotic urbanisation has disrupted the connection between man and nature in the past decades, exposing the individual to a predominantly artificial environment, but at the same time affecting the natural resources necessary for life.

This is the case of Hunedoara, a former mono-industrial city, currently in a shrinkage process, but having huge resources for recreating a new identity – the Corvin Castle, one of the most visited monuments in Romania and an interesting blue-green infrastructure, the last one least obvious as a resource, but maybe more important on a long run.

The industrial history of the city has diminished the vitality of the public space and the relationship between man, the urban environment and the natural environment. The major natural components – Cerna River, the Zlasti Stream, the high vegetation - essential for a functional and healthy urban ecosystem, were degraded by human interventions, being excluded from the recreational offer of the city. The project aimed to develop a strategy for remodelling the post-industrial urban landscape, based on contemporary principles of urban planning, from the ecological sphere. In order to generate a holistic approach to the project, four landscape restructuring methodologies were proposed for analysis. They come from the field of landscape ecology, describing ways to reintegrate natural processes into the human environment, the field of river restoration and the mechanism of image formation of the city. Following a methodology developed by the authors, based on different maps overlap, working at different scales, from landscapes to sites, the project focused on defining specific issues to be solved in order to transform Hunedoara in a city with a higher quality of life, based mainly on the blue-green infrastructure. The goals can be achieved by correlating the principles of spatial organisation with those specific to ecology and hydrology.

At an urban scale, green spaces become interconnected components of a large network that aims to foster human interactions based on assuming responsibility for environmental integrity, while at a detailed scale, the project aimed to correlate the distribution of mineral surfaces with the water trail accumulated at the limestone level and the impact on the natural sources of ground and underground water in the vicinity.

In conclusion, an interdisciplinary approach based on the theories of ecology and urban design can generate an original solution to a problem faced by many former industrial cities, not only in Romania, but also in Europe.

Keywords: blue-green infrastructure, interdisciplinary, landscape ecology, shrinking city, Hunedoara.

I. INTRODUCTION

Formerly an industrial city, Hunedoara is currently facing serious shrinkage problems, low level of education, poor quality of public spaces - green and mineral - and the functions necessary for a contemporary urban lifestyle. With the cessation of industrial activities began the phenomenon of degradation of urban spaces after 1990. The site proposed for the study is the historic neighbourhood “Old Town” of Hunedoara, Romania. The presence in the neighbourhood of an architectural monument of international importance, Corvin Castle, creates the necessary conditions for the development of a tourist area and the reinvention of the city’s identity.

It is the presence of two flowing streams and abandoned green and public spaces that could be the engine of the city’s development based on other premises, a sustainable development that has in the foreground the restoration of the connection between the Castle and the city centre, necessary when defining the city as one with highly touristic potential. The paper aims to argue that the blue-green infrastructure can play a major role for redefining a new identity of the city, using an interdisciplinary methodology at the confluence of theories of urbanism, ecology, landscape and architecture. As an example of such an interdisciplinary approach, a project made for public spaces in the central area is presented.

II. HUNEDOARA – A SHRINKING CITY: CHALLENGES AND OPPORTUNITIES

II.1. Shrinking city- the evolution of the concept
Deindustrialisation amplified the effects of urban contraction and contributed to the birth of a phenomenon with significant implications, both quantitatively and qualitatively, in all aspects of society’s life and changes in the physical characteristics of cities - shrinking city [1]. Declining birth rates, ageing population, the disappearance of public facilities, social segregation, abandonment of buildings, streets or large areas of land, increased number of demolitions are just a few indicators of the phenomenon [2]. The complexity of the typologies of transformations, contraction and extension, is supported by the social, political, geographical,

and physical context in which they occur. Thus, the concept of “shrinking city” includes several typologies of cities whose generated problems are solved in specific approaches based on an experiment with the help of tools from various urban concepts [3].

II.2. Hunedoara - a short history

Hunedoara is located in the central part of the County with the same name, on the Cerna Valley, 19 km from Deva. Hunedoara first appeared as a townlet near the fortress and then as a city at the confluence of the Zlasti Stream and the Cerna River. The appearance of the city was closely linked to the existence of material resources, which provided people with good living opportunities. There were iron mines in this area since ancient times [4].

Hunedoara was formed by a slow process of urbanisation, most of the inhabitants of this land having agriculture as main occupation. The end of the 19th century is marked by the inauguration of several furnaces in the neighbouring settlements. These were included in the structure of the Iron Factory. In 1919, it became the property of the state, and during the interwar period, the activity in the field of mining and iron extraction was diversified by the appearance of steelworks. The expansion of the industry began in 1945, shortly after the end of World War II. During its development, the industrial economic unit will be known in the country, but also abroad, under the name of Hunedoara Steel Works. The urban structure of the city is relatively new, the 1950s marking the beginning of its formation as an urban settlement in the full sense of the term [5]. Currently, the city’s economy is supported by Corvin Castle, which annually attracts a large number of tourists from all over the world. The functional and symbolic connection of the Castle with the city centre is interrupted by the lack of a coherent network of pedestrian alleys, by the low quality of the urban public space and by the lack of recreational, relaxing or commercial activities and functions.

II.3. Dysfunctions

The dysfunctions can be catalogued according to the field of origin: administrative, social, an-

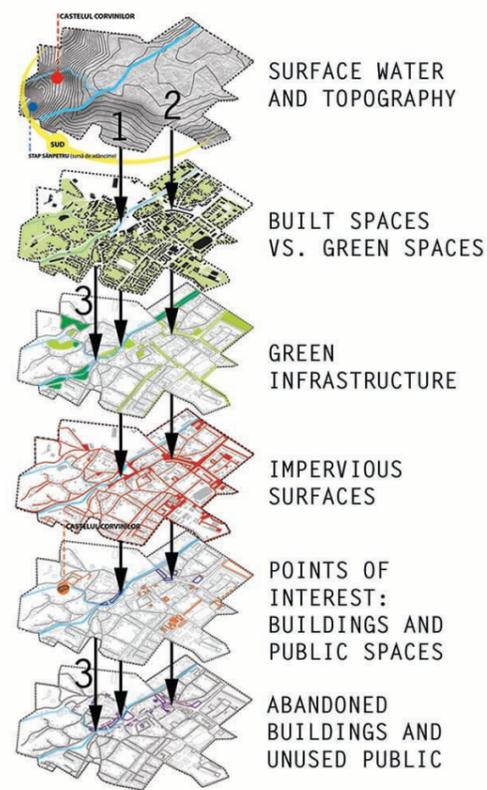


Fig. 4. McHarg type analysis

-Lynch type analysis - this analysis highlights how one can intervene on the spatial organisation so that the newly created links are coherent and adapted to the chosen location (Fig. 5).

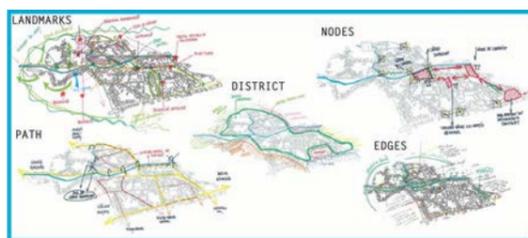


Fig. 5. Lynch type analysis

IV. BLUE-GREEN INFRASTRUCTURE IN THE URBAN LANDSCAPE – DESIGNING WITH NATURE

IV.1. The benefits of creating and managing a blue-green infrastructure in the city

Under the name “Blue-Green Infrastructure” (abbreviated BGI) we find a complex system, consisting of water and vegetation, which integrates hydrological and ecological systems with

the design. The result of this interaction is an interactive and functional system that contributes to the generation of natural, socio-economic and socio-ecological benefits in the urban environment [13] – see Fig. 6.

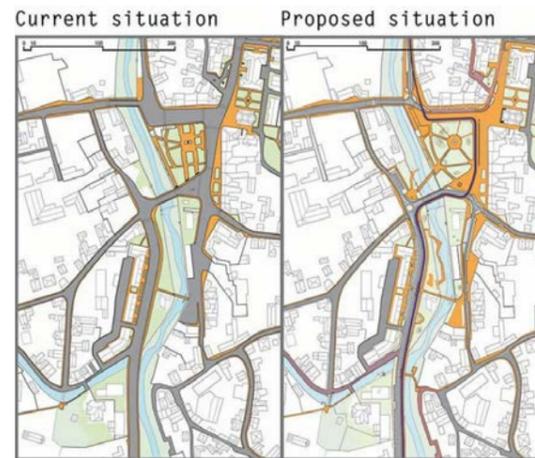


Fig. 6. Current situation vs proposed situation

The importance of green spaces and vegetation was debated and analysed by representatives from various fields: psychology, ecology, landscape design or others. The benefits associated with ecological infrastructure refer to the social environment, climate, ecology or hydrology:

1. Ecological infrastructure shall mitigate the effects of climate change by reducing the heat island effect, limiting day-to-night temperature fluctuations, cooling the air or purifying it.
2. Human exposure to nature has beneficial effects on physical and mental health [14], helping to induce a sense of calm, satisfaction or providing opportunities for sport, recreation, health and social cohesion.
3. From a hydrological point of view, an ecological infrastructure allows the groundwater supply, reduces the accumulation of rainwater on the surface of the land, reduces soil erosion and limits nutrient loss, reduces ecological disturbances in riverine areas and increases rainwater quality through various filtration and natural purification methods.
4. The blue-green infrastructure has economic benefits by lowering the costs for the protection of settlements against floods, provides inexpensive methods of arranging public spaces, reduc-

es costs for water purification and treatment, creates an urban environment that attracts investors, tourists and locals.

IV.2. The project for the blue-green infrastructure - urban scale

Through methods and tools specific to urban design, based on concepts and knowledge from ecology, natural systems can be reintroduced in the city, allowing water quality control. Sustainable methods of rainwater management propose that within the city, there is the possibility of retention, capture, filtration, infiltration of water from rainfall [15]. All this were applied into the project for Hunedoara, from urban scale to smaller scale, even in detail.

The main objective of this work was to restore the connection between the Castle and the old city centre, by creating an ecological infrastructure that has as at its core the natural landscape, the Cerna River and the Zlasti Stream. Although the project was detailed for the central area, the developed ecological infrastructure can be extended to the rest of the city (Fig. 7).

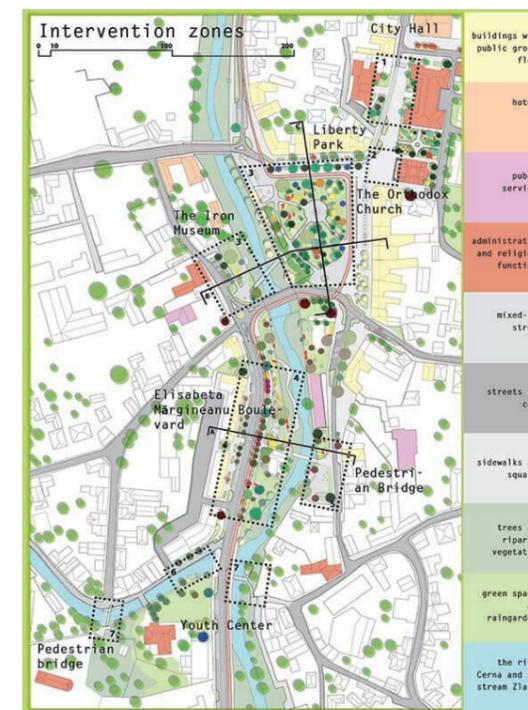


Fig. 7. Intervention zones- redevelopment of existing green spaces and proposing new ones;

The construction of the blue-green infrastructure involves:

- rehabilitation of the banks of the river and the stream according to ecological, natural methods and principles;
- rethinking pedestrian and vehicular traffic and remodeling the urban landscape, adapted to the current needs of the local community (Fig. 8, Fig. 9).



Fig. 8. Detail – Cerna riverbank design



Fig. 9. Detail – Main park redesigned

IV.3. The project for the blue-green infrastructure - small scale and details

Over 60% of the urban surfaces are covered with impervious materials that don't allow the stormwater runoff to infiltrate into the soil and recharge the groundwater. Improving the management of stormwater is an imperative condition for creating a healthier urban environment for people, plants and wildlife. Vegetation is the most important element in the process of natural water cycle, as it slows the water movement, reduces the soil erosion and keeps pollutants away from the waterways (Fig. 10, Fig. 11).

Bioretention and bioinfiltration are natural processes that underlie the stormwater facilities like bioretention and bioinfiltration planters, bioretention swale or permeable paving. Permeable materials for paving help reduce stormwater runoff and allow the water infiltrate into the soil. When applied, the context must be considered in order to achieve maximum performance of its capacity.

Bioretention planters are constructed along wide streets, between the road and the sidewalk, and are bounded by vertical concrete walls and a flat bottom area. Before the water is slowly infiltrated into the soil, plantings help treat the stormwater runoff captured from the street.

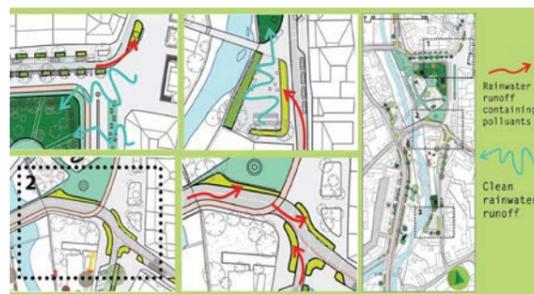


Fig. 10. Plan – stormwater management



Fig. 11. Detail – stormwater management

Biofiltration planters are suitable where infiltration of rainwater is not conducive as it contains a great amount of pollutants. Because the flat bottom area of the cell is made from impervious materials, the stormwater filtered by plants roots is captured through an underdrain pipe connected to the storm sewer system. This tool helps control the stormwater quality and reduces runoff volumes.

Unlike biofiltration planters, biofiltration swales use more space as they do not need vertical walls to keep the water away from buildings and road infrastructure. They are also less expensive and can be planted with trees and other native species of plants.

Stormwater trees are of great importance for the urban environment's aesthetics but also for the ecological benefits of urban spaces. When they are well taken care of, trees have a great capacity to collect and treat rainwater, before the transpiration process is initiated. The types of soil and plants used in a bioretention or biofiltration cell are selected according to climate and region-specific condition, the water absorption capacity of the soil.

The project site is crossed by Cerna River and Zlasti Stream. Over time, road rehabilitation processes and lack of green spaces maintenance have degraded the public space and interrupted the natural processes that allowed the stormwater to infiltrate into the soil and recharge the aquifers that feed the rivers. The proposed situation aims to correlate the distribution of mineral surfaces with planted surfaces and the stormwater runoff. Although the mineral surfaces are still predominant, green spaces have been placed between the roads and the riverbanks, in order to stop polluted rainwater runoff flow directly into the rivers. Former unused parking spaces and wide streets were redesigned to provide more space for social interactions but also to define the premises for developing a blue-green infrastructure that would redefine the city's identity.

The stormwater facilities presented above have been applied taking into account the use of public space: areas for pedestrians, mixed-use streets, parking places, parks and roads. Therefore, rainwater coming from different site area

is captured, treated and infiltrated or captured, treated, retained to be reused or directed to the rain sewer system.

Although the ecological aspects are of great importance, social, economic, aesthetic and educational aspects have been considered. The presence of water in public space seeks to show citizens the importance of restoring degraded habitats and protect the most important resource for life, the water.

V. CONCLUSIONS

The creation of a blue-green infrastructure strengthens urban ecosystems, improves the quality of life and promotes sustainable local methods of rainwater management, while contributing to the creation of areas of relaxation and recreation with a high aesthetic value. The proposed project aims to remodel the post-industrial urban landscape using economically and ecologically efficient methods of intervention on public spaces and major natural elements present in the city (water and vegetation), while seeking to integrate user needs. An aspect that should not be neglected is the educational potential of such projects.

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The street as a public space in the workers' colony and its impact on the ghetto-type community

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ABSTRACT

"Any education is self-education, and we, as teachers and educators, actually create only the context in which the child self-educates. We must achieve the optimal context, so that, through us, the child can be educated on his own, just as he must be educated through his own inner destiny." Rudolf Steiner – philosopher, pedagogue, architect.

Suburban areas are the most important areas for the future development of cities, but also in here we can find the highest level of poverty. Thus, we can say that the development of cities and communities in the suburbs are influenced by poverty. Therefore, it is essential to develop sustainable strategies, taking into account the dominant factor as poverty. Suburban neighborhoods are the poorest, often compared to ghettos. The paper analyzes the context of architecture dedicated to this community with a specific atmosphere and identity.

In this context, the author developed the project "Community Center" [1] for the diploma project in 2018, which aimed to study and propose architectural solutions for the community in the working district Kuncz, so as to develop and increase the quality of life in a troubled community. This project was very much based on the street space - the street house - because the people in the neighborhood spend a lot of time on the street, the street representing their house, as well as architectural proposals and solutions, but did not address the public space - the street itself - with which was closely related. Thus, in this project, the author will evaluate and analyze the working colony, the historical, anthropological, urban and social evolution, as well as the current needs of the community, how it came to become a working class neighborhood from a working colony, and finally, we will propose a solution to revitalize the development strategies for these communities. The strategies will be proposed on the working colonies under discussion, but they can also be proposed for similar communities, in the current social context, which can be taken over and implemented in other working communities.

As an example, in the current context of the COVID-19 pandemic, in these communities people live in droves, in very small spaces - the Kuncz case. Often families, in which three or four generations live together, have only a room or two. Apart from a few public fountains on the streets, they have no running water or sewerage. They are therefore ideal conditions for the spread of COVID-19 infections. In these conditions, how necessary and urgent is the public space for them? How important is a public space in this community? What does a public space mean to them?

The proposed strategy will reveal the needs of the community, after identifying the problems, and will propose current, modern, alternative, economic and social solutions to the current trend of marginalization, distancing and dispersal of communities.

Keywords: ghetto, working colony, poor, future, street..

I. INTRODUCTION

The Kuncz neighborhood was founded as a workers' colony, due to the brick factory that was built in this area by Joseph Kuncz, the evolution of the neighborhood being closely related to its existence and operation. The first houses in the neighborhood were built in 1920, being intended for the workers of this factory. So people were attracted to factory work, came with their families, built houses and formed the Kuncz labor colony together [2].

The history of the neighborhood was closely linked to the establishment of the brick factory, on the territory of which the workers' colony was formed. The industrial development of that time brought with it the increase in the number of workers and implicitly an increase in the need for housing. In order to have a constant production, the factory had to have a stable workforce, and this was possible only if the workers lived in the immediate vicinity of the factory, which also happened in the Kuncz district, so it was necessary to create stable settlements. who needed to be provided with the related hygiene conditions. Thus, separate houses were built for 2-4 families (as the land allowed) with the necessary outbuildings for the household and a garden.

Residents of the neighborhood faced a major crisis due to industrial and economic changes immediately after the revolution, and the closure of the brick factory. After the closure of the factory, the majority of the population was left without jobs and without the possibility of subsistence. Because of this, the value of the land has decreased considerably, attracting the migration of the poor people. Thus, the Kuncz district kept its original characteristics, remaining a rural island inside an urban ensemble, being able to be defined as a ghetto, because it was allowed to decay through the negligence of the authorities, thus the first gypsy owners of the houses appeared.

Currently, the old workers' colony, located in the southwestern part of the city, has transformed the Kuncz neighborhood into one of the most problematic neighborhoods in Timisoara. The rapid development of the city did not reach Kuncz, where the inhabitants face problems worthy of the early nineteenth century (Fig. 1).



Fig. 1. Kuncz district at present

The community gradually expanded after 1989, currently about 800 people live here in 155 households, official figures, but the real figures are probably slightly higher, most of the inhabitants being gypsies. The community is not one of traditional gypsies, the inhabitants do not have a traditional customs. There are no visual elements to identify community members outside, maybe just the poor look (Fig. 2).



Fig. 2. Poor appearance within Kuncz district

The town hall is not interested in this community, all the elaborated documents completely exclude the true story of the former Kuncz labor colony (Fig. 2). Because of this, this space requires a more delicate approach and a starting point for more processes of urban and social revitalization, coherent community involvement, community development and equipping the

community with missing or deficient spaces and creating an asset for communities. in the same situation - the former labor colonies.

II. URBAN CONTEXT - PROBLEMS

The characteristic of the workers' colony is transformed into a ghetto-type space - the ghetto in the working class neighborhood. This feature is given by the fact that no one has the interest to fix something here, although there are many problems. Due to the fact that it was a working-class neighborhood attached to a factory, it was allowed to decay through negligence and became a ghetto because no one took care of the public space.

People live with the conviction that they will not have to live here long - the place has no future.

Thus, the main problems are (Fig. 3):

- poverty - lack of food, housing, education and health (approximately 70% of the population lives in poverty); poverty is the result of a combination of causes: poor infrastructure (lack of access to water sources, access to electricity, natural gas), difficult access to the community (unmaintained roads), income based on occasional sources;
- the absence of public utilities - the lack of roads and sidewalks inside and outside the community, made it difficult to communicate with the outside world, keeping the community isolated from the rest of the city;
- absence of the main functions - parks, playgrounds for children / animals, markets;
- lack of jobs - people spend a lot of time on the street, the street being a very important element for them, as well as a second home.



Fig. 3. The main problems in Kuncz

The risks in the area are multiple. Many hectares of land are just rubble, crushed with sledgehammer and broken in search of iron. We also find here all kinds of waste: toxic waste, industrial waste, areas with garbage. For each of these risk situations there is a specific "history", which certainly has nothing to do with the gypsy community in the neighborhood (Fig. 4).



Fig. 4. Multiple-risk area

At the level of the community's lifestyle, there are no differences, they all live in the same conditions, in inadequate and improvised houses. Poverty reigns among them, most living in the same living conditions, close as an educational, social and ethnic level, so it can be considered that they live in a homogeneous and compact community. Dwellings for this community are typical makeshift dwellings, often made of recycled materials (Fig. 5).



Fig. 5. Improvised housing

The exterior and interior arrangements are made with improvised, stolen or begged materials and depend on the needs of the house-

hold: collection of bottles, iron, wood, waste - collection of reusable materials. The physical and social isolation of these communities generates important problems for them, such as the removal of other sources of income, respectively decreases the children's chance for a better education - the case of school dropout being in proportion of 54%.

III. HYPOTHESIS – LOCAL SPECIFICITY

The specificity of the public space - the street - is given by the fact that the people here spend a lot of time on the street, the street being more important than the house itself. Thus, we can say that public space is not hidden, but is present everywhere, but untapped. One can see the importance of the street by adapting the notion of "house" according to their way of perceiving things. Thus, the author can understand a need for a feasible and sustainable strategy, by achieving distinct areas, differentiated by intimidation with sensory boundaries, not physical (differentiation of materials or texture, elevation of certain areas, differentiation by volume, etc.).

The neighborhood has organic streets with narrow streets with small sidewalks and crowded houses (specifically preserved from the labor colony). The street, as a public space in the ghetto, is a meeting area because it is currently an area with beaten earth, due to the fact that there is no infrastructure. This specific should not be destroyed by various urban arrangements (concrete pavers, sidewalks with curbs, etc.), so to preserve its authenticity, it is recommended to avoid landscaping with standard decorations, but prefer to provide appropriate furniture with local materials, all being designed by the people of the community, so as to integrate in the landscape and in the architecture of the place (Fig. 6).

You can see, along the street, in front of the houses a strip of green area, which strengthens the authenticity of the public space as a street. The public space must preserve its authenticity, and preserve its austerity and simplicity. Adapted solutions must increase the importance of the place, so that the public buildings needed - the market for local products, kindergarten / school, fairs and seasonal festivals - had

to be examples of good practice for the whole community both in architecture and in arrangement and integration. in the landscape.

The street is considered to be the main element, the people in the neighborhood being permanently free, open to public and social spaces, not being locked in a building with certain rules to follow. The main law is the "law of the street" but under another guidance and another functionality, a law written under a flexible and personalized design with modular and flexible architecture, assembled and disassembled, like a nomadic community (Fig. 7).



Fig. 6. Street, public space



Fig. 7. Nomad community

This type of architecture reveals new views on the city and integrates the community through green links between main and disadvantaged areas, or even by moving furniture to different spaces in the city - community services come into direct contact with the citizens of the city. Thus, the author can say that, in the current context, the role of disadvantaged communities' returns, through connections and mobil-

ities specific to contemporaneity. Because of this, the urban development of these communities, due to specific and varied conditions, have great chances to offer people in the community an environment conducive to professional and personal development but also a connection with developed areas of cities, which shelter activities they must have, access and this type of community.

IV. OBJECTIVES – COMMUNITY

In order to find the best solutions for this community and for its participants, the main objective is to create an environment conducive to community development. The street - the public space - is also the children's playground, representing the main way in which they discover the world [3].

The street shelters the community, it being made up of 54% children, the vast majority being gypsy. Through this type of public space - the street - we want to solve the identified problems and create a "play" space for this community (Fig. 8).



Fig. 8. Community of Kuncz

The project must respond to the current situation in a sensitive and complex way, and incorporate many references from the urban structure and housing. Given the exact location, it must be a link between public space - street, and private - home, and intervene calmly and naturally in the urban structure.

COMMUNITY - a group of people living in a well-defined geographical area and / or united by common interests.

TARGET GROUP - a section of the community, for which the aim is to produce a change,

which can have effects at the level of the entire community.

BENEFICIARIES - group of people from a target group, for which a direct or indirect change is desired.

WHY?

- the community knows best its needs;
- generated ideas/solutions from the community;
- identifies and mobilizes local resources (human, material, financial);
- increases the capacity of the community to solve its problems.

V. METHODOLOGY

V.1 Kuncz

The studied area is located peripheral to the city center (Fig. 9), occupying a somewhat unfavorable position within it. It is a multi-ethnic neighborhood. I chose this neighborhood because the visual perimeter is of an unusual variety, being a unique element in the area. The sides that border the neighborhood contain discontinuous fronts, made up of houses withdrawn or not from the street, with constant heights and similar typology, segmented by streets typical of medieval development. The neighborhood can be likened to a rural island inside an urban ensemble, being delimited by the rest of the settlements, by clear physical limits. Because of this, the population here lives in a different world... a marginalized world, spending a lot of time on the street.



Fig. 9. Kuncz district within the city

An important aspect of street life is that of adaptability, and the ability to survive in the conditions imposed by the street. Thus, Maslow (Fig. 10) tells us that until you satisfy your physiological needs you cannot think of love, esteem and aesthetics. Maslow classifies the basic needs for a poverty-stricken community, so the problems identified in Kuncz say that there are no such minimum needs in this community [4].



Fig. 10. Maslow's pyramid

V.2. Case study compare Kuncz – Futok

In order to better understand the organization and functioning of these former working-class neighborhoods, a comparison is proposed between the Kuncz labor colony in Timisoara, which has now become a ghetto, and the Futok labor colony in Jimbolia, which has retained its original characteristics.

Both Kuncz and Futok emerged due to industrial activities, namely the emergence of factories. In both cases it is a question of building brick factories. The development of industrial activities necessitated the emergence of new living spaces, so that the foundations of working-class neighborhoods were laid.

The Futok neighborhood is located in the north-western part of the city, being originally a labor colony linked to the brick factory "Bohn" and initially populated by ethnic Hungarians, the word "Futok" of Hungarian origin would mean "fugitives" and it seems that it designates those who have abandoned poorly paid agricultural work in favor of industrial work) [5]. The Kuncz neighborhood is located in the south-eastern part of the city, being originally a labor colony linked to the brick factory in that area. The name of the neighborhood comes from

the owner of the brick factory, Joseph Kuncz. After World War II, Jimbolia officially became a city. The industrial function became dominant, so that in 1977, over 67% of the active population was employed in the city's industrial enterprises. The urgency of housing the surplus population required the construction, starting with 1959, of the first blocks of flats in the Futok neighborhood, and later in the station area [4]. The Kuncz workers' colony (Fig. 11) has an organic development, with individual and crowded houses, with narrow streets and sidewalks, and the Futok colony (Fig. 12) has a rectangular development, following a Cartesian network of streets, but with narrow streets and crowded homes. The blocks and a church also appear in the Futok colony, while they are not present in Kuncz. We can talk about orderly planning in the case of Futok, and disorderly planning in the case of Kuncz.

It can be noticed that both colonies are delimited by the city by different physical limits. In the case of the Futok neighborhood, it is maintained with well-kept housing, infrastructure, the presence of a church, and in the Kuncz neighborhood there is neglect of infrastructure, housing, non-maintenance of public space which led to social and functional isolation (Fig. 11, Fig. 12). What is remarkable about both colonies would be the fact that there is no central square, or a common public space for the whole community, as in Banat villages that have a central square with a church, so the street is considered a public space in these colonies.

History seems to go on in Futok, when the Kuncz district was allowed to decay due to the negligence of the authorities, although we are talking about two cities with a strong industrial history. Although the fate of buildings in working-class neighborhoods may have multiple histories after the 1990s: some of them were either sold to former tenants (block of flats - Polona 19 colony in Timisoara - colony established for the Smithfield factory), or were taken over by mayors and transformed into social housing, a smaller part were bought by investors and transformed into blocks of flats or offices, respectively we meet situations in which they were abandoned by the old owners and occupied by disadvantaged cat-

egories, the legal situation of buildings remaining uncertain (Kuncz case). Regarding the Futok colony, although it was a workers' colony, the houses themselves still reflect the typology at a functional as well as a structural, tectonic level.



Fig. 11. Kuncz, working colony



Fig. 12. Futok, working colony

Both neighborhoods were working-class settlements, but in the case of Kuncz, living conditions and access to infrastructure are much more problematic. Homes are often dilapidated, roofs cracked and water seepage. Extremely poor living conditions endanger the health of most residents in the area (Fig. 13-a & Fig. 13-b). The unique characteristics of the continuous and homogeneous public space are given by

the location and adequacy in a site determined by the local specificity and by the isolated evolution of the community. Without maintaining socio-cultural exchanges with the city or other localities, due to poverty and enclave, the community in Kuncz evolved autonomously and in isolation, and the typology of the settlement has been preserved over time. Although, it is very difficult to define what gives identity to this architecture, we will analyze the framework of the house and the household and we will notice that it possesses unique collective characteristics.



Fig. 13-a. House in Kuncz

Fig. 13-b. House in Futok

V.3 Analysis

In Romania there is no legal definition of communities with problems, for this reason the documentation started from an analysis of existing studies on poor communities, segregated communities and disadvantaged communities. The analysis of the literature showed that most studies on poverty and marginalization in Romania, considered the rural environment, as well

as community poverty at the commune level, and a very small number of studies analyzed the marginalization in the urban environment, at the level below -locality (neighborhood, area, etc.). Therefore, in the Romanian context, the development of a methodology for communities with problems at sub-locality level in the urban environment presents a novelty.

Almost all studies in the field indicate three main criteria for defining and analyzing different types of marginalized areas, namely: human capital (education, health, size and composition of the household), employment and living conditions. In fact, on-site research - any visit to the territory is an event for locals and an opportunity to exchange information. Any visit to a home or even a simple walk on the streets is a spatial and interpersonal interference.

These ghetto-type communities are fragmented between the "bad" and the "good", between the self-proclaimed leaders imposed by the law of the fist and the "weak". In these communities, helplessness predominates, accentuated by the permanent shame of living in an area with a bad reputation and associated with a strong feeling of disregard and discrimination by the majority of the population

An important aspect of the life of these communities is their relationship with the outside world, especially with institutions and authorities. The presence of the authorities in these communities is most often present through the provision of infrastructure and various social services, but they rarely manage to contribute to solving real problems. Unfortunately, there are situations in which local authorities contribute to the formation and deepening of the problems of these communities, through temporary, cheap solutions, without calculating the negative consequences of superficial interventions [6].

During the undergraduate analysis - Kuncz Community Center - there were some on-site visits and interviews with locals, and a general look was made with the difference that the field research left room to follow unexpected situations or events that appeared during field work [1]. Several key factors have been identified in both cases:

- the community is perceived differently from an ethnic and social point of view;
- "internal institutions" were identified: specific family and kinship structures, community rituals, spaces with symbolic meanings - street, cultural / linguistic characteristics, forms of cooperation and exchange;
- the existence, now or in the past, of development projects or other forms of intervention of some organizations, in order to facilitate or improve the local situation of the entire community;
- community profile: neighborhood of houses, improvised housing vs. housing itself, accessibility - the condition of the roads;
- behavior in public space - the existence of symbolic barriers, the use of public space, exclusion zones;
- visible processes and changes (Fig. 14-a & 14-b): homes under "renovation", new constructions, improvisations, posters.



Fig. 14-a. Visible processes and changes, Kuncz

Fig. 14-b. Visible processes and changes, Futok

The traditional houses can be seen in the Futok district (Fig. 15-a & Fig. 15-b), where the influences of the city are more difficult to penetrate, while in Kuncz the old typology was destroyed (Fig. 15-c, Fig. 15-d, Fig. 15-e & Fig. 15-f). For the old houses, materials characteristic of the area where used, the construction material used being brick. In the case of Futok, the people who worked in the factories received the plot and construction materials, which shows a traditional construction of the houses preserved for the most part even today, while in Kuncz the land has lost its value in the past. led to the transformation of the neighborhood from a working-class one into a poor one, where poor people settled spontaneously.



Fig. 15-a & 15-b. Traditional houses Futok

It is assumed that the oldest houses in the built fund are those oriented perpendicular to the street. Coincidentally or not, these are the ones that contain on the pediment data and names of the families that founded or inhabited them. The houses developed with a long axis parallel to the street were developed as a later typology, some of the houses representing the development in time of the first typology, by extension with new attached constructions. One can notice a transition in time that makes the pediment of buildings go through. It is to be noted that in the case of houses “restored” or com-

pletely rebuilt, the old material was preserved and used in parallel with the new materials – alternating the solid bricks pressed with ceramic blocks with gaps.



Fig. 15-c, 15-d, 15-e & 15-f. Traditional houses Kuncz

Looking at the whole, the site and the location on the plot of the houses, regardless of their location in relation to the city, have some common characteristics. In both cases we can say that the street alignment is respected and the houses are in relation to the neighborhood with each other, with small lots specific to the working-class neighborhoods because the inhabitants were factory workers and there was no time for agriculture. We can talk about a “modern” lotion, as is the case today in the extensive areas of the communes near Timisoara (Dumbravita, Mosnita Noua, Giroc, etc.).

If the author compare the plot in Futok with that of Jimbolia, we can see that a square bounded by streets can encompass the entire district of Futok – different densities (Fig. 16). In this case we can say that the typology has been preserved, there have been no visible episodes of population change, which tells us that the membership has been maintained.

Similarly, can bring up the plot between Kuncz and Plopi, except that here one can observe a rectangular, clear, orderly plot in the case of Plopi, and a random, medieval development in the case of Kuncz, but in both districts the lots are small with cramped houses (Fig. 17). The plot is different in Kuncz because of the population change over time, here the membership has not been maintained.



Fig. 16. Futok / Jimbolia

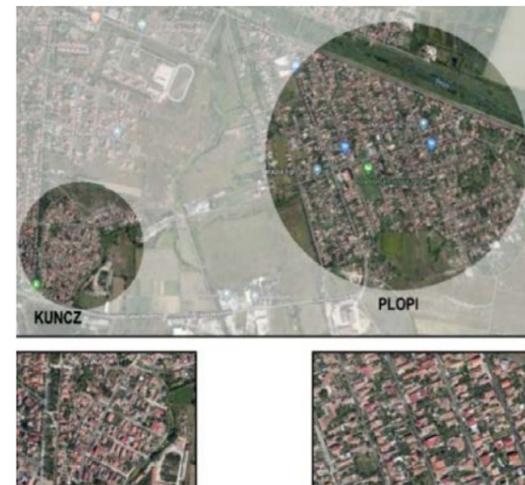


Fig. 17. Kuncz / Plopi

The relationship of public space – private space is the street as support of activities – the meeting area, because there is no market or a public space intended for all. Indeed, where there are no clear boundaries between several plots (Kuncz case), where the land is unencumbered, where there is no separation between the street and the courtyard, the dwellings are constituted in nomadic, and the space between them forms a continuous relational in which the public life unfolds, depending on the needs, in one place or another, moving from one dwelling to another (Fig. 18-a & Fig. 18-b).

Basically we are dealing with a continuous and homogeneous space, with a street market, an

agora, in which the houses are only topographical landmarks. The nomadism of social life stems from the lack of a hierarchy at the family level. If the families of Kuncz had been more affected then there would have been a need for degradation. There are, rightly, fences, but they have rather symbolic role, they are discontinuous and the settlement can be traveled not on the road, but through the courtyards, without opening gates or jumping fences.

The distinction between the private public space is little significant: the public space – street, borrows private characters (a horse can appear directly in the street, in the street are stored personal things or a partial and temporary enclosure can occupy abusive lymathe street space) as well as the public character of the market (gatherings, announcements, trade, etc.).



Fig. 18-a. Public space, Futok

Fig. 18-b. Public space, Kuncz

Public space derives from the relationship between full and empty: houses are small, low and isolated with small lands – the image created is one of non-delimitation, of non-determination, of freedom. At the representative level we cannot say that public space is more important than housing, as long as without housing, public space would not have existed, most of the time is spent in the social continuum determined by the street without converging at one point or another.

The houses seem to be oriented regardless of the cardinal points, following the street and the

relationship with access. Without a tradition of the community, in Kuncz, each household is an experiment that adjusts from year to year according to the needs of the present, this tradition being present in Futok but less visible. The reality is that no construction pursues any purpose other than adequacy to immediate needs. In the courtyard, apart from the household annexes, there are also small production workshops.

In an attempt to identify an architectural language of dwellings, i.e. built elements that can be realized about the type of space, its nature, the symbolic load, the most representative would be the porch as a semi-private architectural element and, at the same time semi-public that makes the transition between the “weak” space of the court and the threshold of the house. It suffers here a mutation, transforming from a space of passage between semi-private and private, into a space of passage between semipublic and private, the difference being subtle, nuance.

It can be easily noticed, at the level of the plot where the enclosures have a symbolic role, at the level of the public-private space relationship – street – a functional triangle street – courtyard – house, and at the architectural level the sizing of the dwellings and their actual execution confers flexibility, and together with the vernacular fill the lack of specialized spaces. All these architectural details can be found in other working-class colonies, the characteristics of Futok being related to the Banat villages founded by the “svabi”, and the characteristics of Kuncz can be found in the former working-class districts that have become ghettos today. The architecture here is largely a tribute to the existence of the brick factory. It is interesting how the community has chosen to perpetuate forms and change the aesthetics of the place over time and that all new constructive systems have subscribed to traditions, nuanced them and giving them additional riches.

VI. CONCLUSIONS

The proposed strategy refers to the physical arrangement of the public space – the street, but also to the social relations between the individuals of the community. However, we will try

to find solutions to current problems in disadvantaged communities. The solutions are found if we understand the past and future of these working-class neighborhoods.

The importance of the street as a public space, disordered housing, lack of infrastructure and social relationship with the rest of the areas, is not at all random, because the vision of the present is the key element that gives value to the current and future community. The street, as a point of maximum vitality, the mirror of times and social structures, speaks, hears, sees, imposes, excludes, lives and tells, being the great sign of identity.

The solution will have as its starting point a series of questions that make the project balance between the idea of efficiency (which leads to printing) and the need for identity (involving personalization), between the need for socialization and that of intimacy, between flexibility and rigour, between different intentions of densification and scenario alternative occupation of the site at different stages of time.

In this context, the street interface will be understood by the use of public space: the public common space is made up of sequences of inland streets, located in turn in its interface area with the city streets. The atmosphere of the place is given by the street, used as a social and leisure space. The equipment of this space requires an arrangement that integrates into the landscape, with an architecture designed by the people of the place, with a street profile with tree alignments, so that a mini-orchard is created in front of the houses - which contributes to the ambience of the public space.

Similarly, in front of the house urban furniture, like the bank, invites the community to socialize in a suitable space, because it represents a village settlement. The common space will be suggested by an izlaz, i.e. a green ring – the open field on the edge of the neighborhood which is currently a mountain of garbage (Kuncz case) – a place for animals left free (horses – being a nomadic population), but also for games, meetings, socialization, etc. This green ring will bring money to the entire community and be a filter of interaction with the rest of the city.

Thus, in addition to the varied common space,

each house has its own private courtyard which is determined by the way of distribution of houses on the ground and which customizes and nuances a filter between semi-private and private spaces. The ensemble includes more house typologies, all having inner courtyards in relation to what happens inside and outside, but which can be shaped according to the need of the space, which gives variety to the space.

Thus, it is proposed to transform the street from the diploma project into proposals aimed at improvement and punctual interventions related to public space – street as well as private space, the courtyard and street fronts, as well as activities that mobilize the public space. The specifics of the street should not be destroyed, but helped to fulfill its true function, that of public space, because there is no market to take over this feature. Such a place, once used for the purpose shown, creates events that invade the necessary space and the aura in which it will take place – the street. The facilities will be made traditionally, with local materials and technologies and as simple as possible, avoiding typical urban landscaping, often inconsistent with the specific ambience of the place. The street space is perceived as a unitary space, without artificial segmentation/levelling, and will be highlighted by locally made furniture with natural and recyclable materials. In addition, there will be highlighted by minimal landscaping (banks or trees) objects such as historical monuments, fountains, located within the street space.

When talking about the ambience of the street, it is important to keep in mind the part of the furniture that marks and accompanies it permanently. Thus, the street space as well as he in the immediate vicinity of the household is animated with furniture for staying specific to rural areas, such as the benches in front of the house, but also with furniture such as locally made trash cans. The landmark elements remain highlighted by the way they are treated and the position they occupy in the public space, the place will be able to be marked with vegetation or a few places to stay, depending on the context. The preservation of these monuments will be done with a more restrained, discreet appearance. It is important the relationship along the water

course, in both cases, the relationship with it being quite close and having a special character. It is important that the banks of the waters that cross the districts, sometimes defining for the morphological structure – Kuncz, are treated in a landscaping manner. It is recommended to arrange direct access to water at several points along the course route by placing gravel steps or ramps and arranging wooden pedestrian pods. The banks will be preserved and arranged as naturally as possible, with areas of specific high vegetation, river stone grass and gravel.

Currently, an important factor is the pandemic caused by COVID-19, which requires strict hygiene and social distance, a sudden stop of human activity that cannot be estimated over time. How will this community understand the term pandemic? Does this community understand to wear masks on your face every day? Wash if housing conditions are below the poverty line? Is this community able to adapt to current requirements? What will the street look like with social distance in such a pandemic and what is the ability of people in the community to understand the effects of the pandemic? This requires an understanding of how they perceive public space as the street and the exchanges that have taken place in the street, as well as the relationship between public space and private space.

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The impact of distance to city center on housing prices

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ABSTRACT

This paper explores the impact of distance to city center on housing prices.

Among the consequences of the phenomenon of uncontrolled extension of urban territories are: spatial dispersion, social segregation of the city population, dysfunctionality of the bordering areas in relation to the central urban areas, disaggregation of the urban territory through the difficulty of accessibility and connectivity of the newly formed areas, the appearance of some types of residences – example: emergence of gated communities, new housing practices under the aspect of new urban culture, loss of local and global urban identity.

In order to prove the hypothesis presented, it is analyzed if it applies in the case of Arad Municipality. The price of the properties is influenced by the proximity of the city center. Each individual has their own needs and their own lifestyle. Therefore, the advantages and disadvantages do not weigh equally for each; varying according to the age, the location of the job, the present or absent functions in the housing area - these are variable factors that must be considered before a real estate investment.

Choice of residential location and the transport options that flows from those choices may have significant impacts on family budgets as the combined share of expenditure on housing and transport increases. Thus the perception that housing is cheaper on the urban fringe of cities may not be borne out by reality for income constrained households which are forced to spend a large share of their disposable income on transport to work.

Keywords: accessibility, sustainability, periphery, center, transport, urban sprawl.

I. INTRODUCTION

In the last decade, there has been an increasing concern about the spatial extend of the Romanian cities, the implications of this physical dimension for the daily commute, the impact on the environment. The morphology of the cities has shown a common tendency to expand by transferring territorial boundaries to the outside, as a process more or less controlled by urban development strategies and policies. The problematic issue was the depopulation / abandonment of some areas of the city and the fundamental change in the dynamics of the components of the urban structure. The spontaneous emergence of new poles of random urban growth was made possible by destroying and interrupting the evolutionary natural process of cities, by restoring a new center-periphery relationship, by inconsistent functional and territorial modulations, which will endanger the development of cities.

Among the consequences of the phenomenon of uncontrolled extension of urban territories are: spatial dispersion, social segregation of the city population, dysfunctionality of the bordering areas in relation to the central urban areas, disaggregation of the urban territory through the difficulty of accessibility and connectivity of the newly formed areas, the appearance of some types of residences – example: emergence of gated communities, new housing practices under the aspect of new urban culture, loss of local and global urban identity.

The fastest effect of this distance from the home is observed on the family budget, due to the distance that must be traveled daily by car. A main topic of thought would be the following: when the transport costs are taken into account, for a family living on the outskirts of the city or in the closest locality to the city, this choice is justified, or is it proven that in time does this choice become more expensive, to the detriment of living in the central areas of the city, where public transport is accessible? At the moment, people generally focus on the costs of buying or renting a home. Housing prices and commuting time are inversely correlated: the price of a short commute is correlated with a high price for the home, and the low cost of housing to a long commute.

Normally, our lives are split between two important poles: home and work. Therefore, the financial profile of every human is defined by these two poles, respectively by the shuttle between the two poles.

II. URBAN SPRAWL

The phenomenon of urban sprawl was first felt in America, along with the large infrastructure developments that allowed Americans to purchase a cheap home and a personal car. As the land inside the cities was expensive, and with strict regulations, the real estate developers were oriented towards the outskirts of the cities and outlying areas, with cheap land, low taxes and often unregulated from the urban point of view.

In particular, there were monofunctional residential neighborhoods to which people with average incomes went. On the one hand, these neighborhoods fulfilled the desire for a different lifestyle close to the city, but at the same time led to problems of sustainability and profitability of services and utilities, monotony, functional and social segregation [1].

The phenomenon spread to Europe, but with the industrialization, other types of housing structures adjacent to the urban core were born, in the context of migration of the rural population to the city, in search of a better life. The structure of these areas is different. It is a somewhat organic development, in the absence of a developer, a situation more difficult to control and manage [2].

From the urban point of view, the main causes of urban expansion are:

- the rapid and unequal development of the production forces in the territory - leads to the hyper-development of a certain spatial direction, in a short period of time. For example, hypermarkets and malls that require large areas of cheap land, then generate large flows of people and interest of real estate developers;
- urban networks - the cooperation of urban centers based on the availability of resources in the territory, which leads to the formation of agglomerations and metropolises. Medium cities develop as equilibrium poles in the territory;
- the tendency of decongestion of the center -

the center becomes an administrative pole, and its inhabitants and of the immediate vicinity are oriented, towards the outskirts, where they aspire to a different lifestyle, but close to the city [2].

From a social and cultural point of view, urban expansion has its explanation in:

- the demographic explosion;
- rural exodus - the attraction of large urban centers as agglomerations of economic opportunities and potential for social affirmation;
- low living conditions in rural areas (advanced impoverishment) - lead to the establishment of people in rural areas in the periphery, due to low costs;
- development of new models of urban life, which are often not possible in a dense tissue, already built.

Time spent behind the wheel does not seem to discourage suburban homebuyers.

Many people who live for decades in high blocks, in small and narrow apartments, eventually get to want a house with garden and yard to live in, when they get older.

Unfortunately, we live in an era where traffic is increasingly suffocating, and traveling a short distance is getting longer and longer.

Beyond these logistical issues, however, a house located at some distance from the city center offers advantages that cannot be found elsewhere. Perhaps the most important of these is silence. Near the city, the heavy traffic is not so dense, there are not so many noisy works and yards, and the air is also cleaner, due to the proximity of nature. A house on the outskirts is really a refuge for the tenant who does not want to have 24 hours a day from the urban agitation that never ends.

In addition, a house on the outskirts gives you the privilege of living among like-minded people, with the same idea of life, people who have bought a house to live for decades with families. The closer you are to the city center, the more colorful the community is.

In order to prove the hypothesis presented in the article, we analyze if it also applies in the case of Arad Municipality. Thus, analyzing the urban formations that complete the urban structure of Arad, we can identify areas that

gravitate semi-independently from the Municipality of Arad, respectively from its central area (Fig. 1). These localities were born together with the need to expand the residential area, but they do not have the functions that would allow them total autonomy from the functional center of the Municipality determining a series of characteristics that we are going to analyze.

The distance to the city center is essential in the possible development of these areas. They, with time, can develop as independent urban settlements, with functions that allow the self-support or extensions of the Municipality of Arad together with their development and union with the territorial limit.

In order to prove the hypothesis, the situation of the prices on the real estate platforms on the lands was analyzed. As an element of measurement and comparison, an average of the price per square meter of land is performed, this generating a conclusive analysis on the influence of the city center on the value of land (Fig. 2).

It can easily see a decrease in prices per square meter of land with the distance from the center. This also applies to the micro scale, inside the Municipality, at the level of the newly formed eccentric centers, having the case of Timisoara Municipality. With the accelerated growth and development of the city, the distance from the center becomes more difficult to travel, road traffic becoming more difficult, all these things leading to the need to implement complementary functions to the residential area that make it operate independently to the city center.

The price we have to pay for the purchase of a cheaper land, but at a distance to the city center must have behind it an analysis of the cost of later travel to the functions present in the city center.

In order for the study to be truly truthful, we extracted from the general urban plans of the Municipality of Arad and of the surrounding communes an analysis of the existing functions (Fig. 3, 4, 5 & 6). There is a clear share of the high residential function in terms of localities that revolve around the Municipality of Arad, contrary to this, there is a wider color scheme of the functional palette present in the center of Arad. This fact clearly supports the idea set

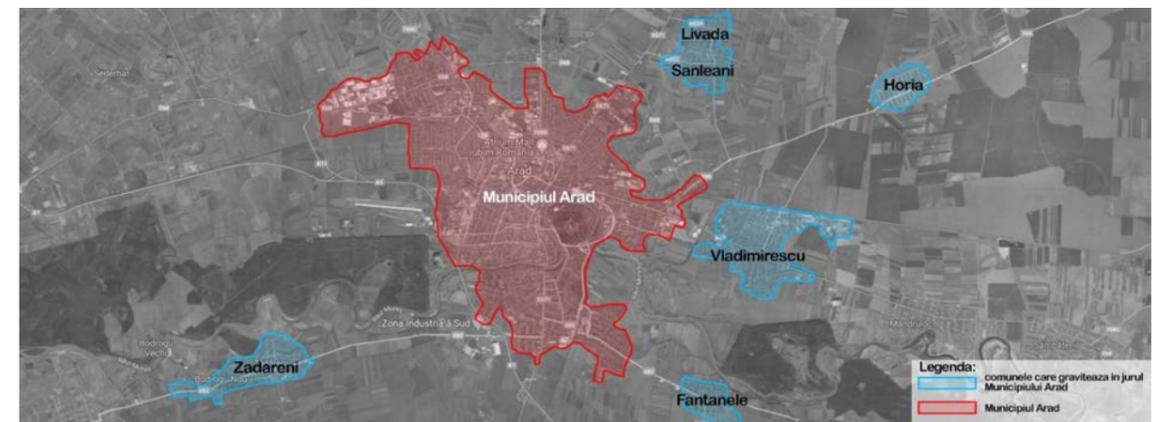


Fig. 1. The villages that gravitate around Arad

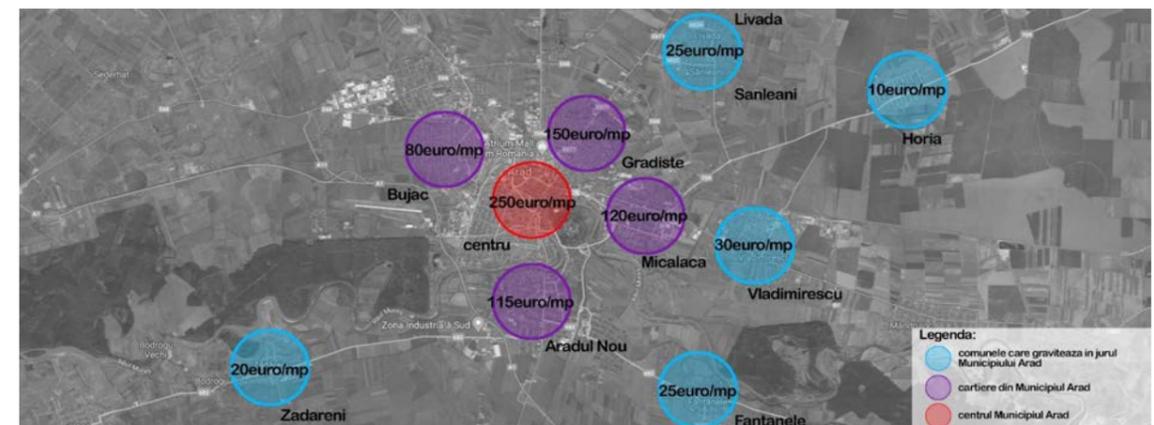


Fig. 2. The price of land for one square meter

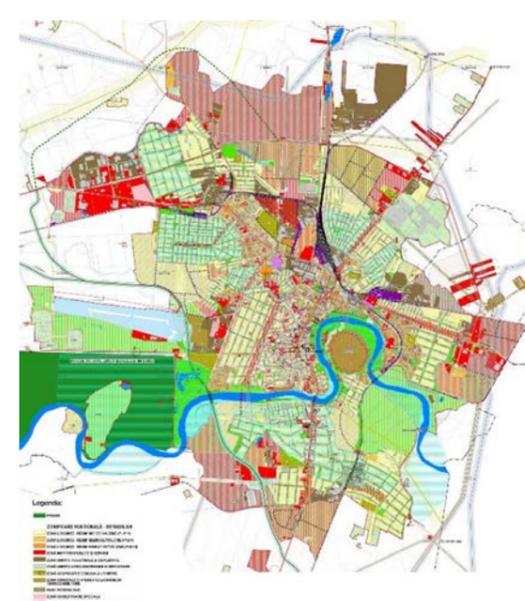


Fig. 3. Arad - existing functions



Fig. 4. Horia - existing functions

out in the title of the article, the distance to the city center brings benefits in terms of land price, but is subject to a functional dependence on the center, which generates additional transportation costs. In order to make a feasible investment, all these characteristics must be weighed and analyzed so that in the long run the investment made can be sustained.



Fig. 5. Livada - existing functions



Fig. 6. Vladimirescu - existing functions

III. HIGHER TRANSPORT COSTS

The effects of a change in the level of activities, such as changing the number of inhabitants in a certain area or the number of trips made, as well as those due to a new connection on the transport network are observable phenomena. A discussion on the link between urban form and mobility is increasingly needed on the background of global warming, rising fuel prices and increasingly common traffic congestion. The infrastructure built ends up being consumed, bringing with it a whole series of negative factors produced in this process. Cities around the world are beginning to feel these changes more and more, which is why questions are asked about the duration of the trip, the quality air, accessibility, number of accidents, types of infrastructure, but also social segregation and housing and mobility costs.

Despite all these aspects, most cities still focus on road infrastructure and especially on mo-

torized transport. A large number, both from developing countries and from developed countries, show uncontrolled growth on the outskirts of cities.

This massive expansion of the peripheries promoted by the continuous growth of the urban population worldwide, produces a great diversity of residential urban forms whose performance in the field of accessibility is often reduced.

The development of neighborhoods, cities and regions in such a way as to have as little dependence on the personal car as possible has shown that they produce sustainable urban forms with a healthier environment that offers a variety of transport options. The development of these sustainable transport and mobility systems is a priority mainly in highly urbanized areas.

IV. TIME LOST IN TRAFFIC

Beyond the economy, the decision to move is often an emotional one. Many suburban shoppers are motivated by the needs of the family - they want more space, a safe place to raise their children, spending more time with the family. Due to the daily commute, some of the family's needs become unfulfilled, as free time after work decreases and fatigue accumulates [3].

The manufacturer of navigation equipment, Tom-Tom, recently published the ranking of cities in terms of traffic congestion. The study included 416 cities from 57 countries. Bucharest ranks first in the EU and 14th in the world (Fig. 7). According to the traffic index, at peak hours, a road on the streets of the Capital takes twice as long as it should (Fig. 8). Specifically, a 30-minute itinerary lasts 58 minutes (morning) and 61 minutes (evening), respectively (Fig. 9).

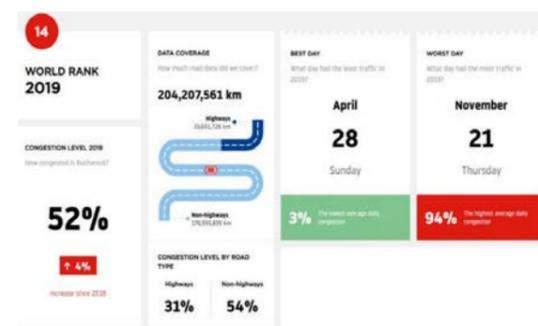


Fig. 7. Traffic congestion ranking Bucharest [4]

What days are best to avoid rush hour?

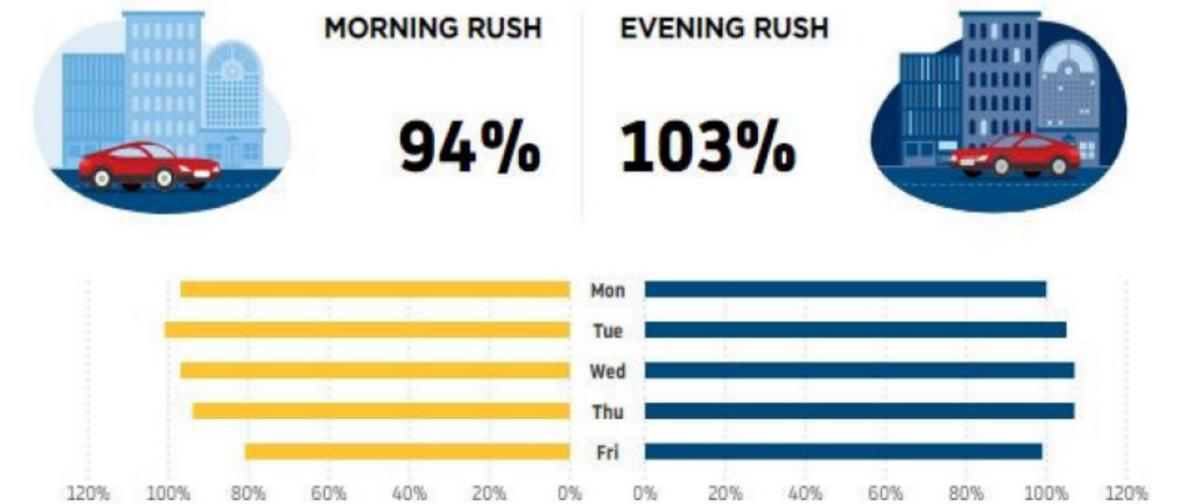


Fig. 8. Weekday rush hour [4]

How much extra time is spent driving in rush hour?



Fig. 9. Time lost in rush hour [4]

In Bucharest, last year, a driver lost an average of 227 hours in traffic (9 days and 11 hours – Fig. 10). Also on average, the busiest time is 17:00-8:00, on Wednesdays. The day with the least crowded traffic in 2019 was April 28 (Sunday), and the busiest day - November 21 (Thursday) [4].

TIME LOST IN RUSH HOUR - PER YEAR

How much extra time is spent driving in rush hours over the year?

227 hours = 9 days 11 hours



Fig. 10. Time lost in rush hour per year [4]

V. URBAN VILLAGE

Less known, but also appeared as a reaction to the dysfunctions of the contemporary city, the concept of urban village has its origins in Great Britain, where in 1989, The Urban Villag-

es Group was born. The concept is designed as a neighborhood unit with complex uses, which should include a wide range of facilities (including health, school and childcare center), whose extension allows the daily urban attractors within the range of pedestrian accessibility. The community should house a population of 3000-5000 inhabitants, on an area of about 40 ha. The series of attributes is complemented by a compact type spatial development, high quality of the urban ensemble, boundaries marked by green spaces, a 1:1 ratio between the number of residents and the jobs, favorability of the car, but without encouraging it's use [5].

With regard to community, it would be characterized by an increase in density towards the central part, where the values would be maximum, including in terms of height, while the large mass would be made up of small quarters, which would it offers high pedestrian accessibility.

Other buildings with community significance can be located in key points, so that they can be seen as visual landmarks, while the green spaces are relatively small size, have high frequency within the structure and increase in size towards the periphery.

The implementation of an urban village type

project involves three major milestones of the planning process:

1. Identification of the implementation area, which can be represented either by a new location or by an urban area that needs regeneration. Usually this process is carried out by public administration, and in collaboration with consulting teams, a preliminary audit and the general outline of the project are carried out;
2. The actual design, with six successive steps: preparation of the drawing, formulation of the main points of the planning, consultation and public participation, clarification of the land issues (properties, serviced, etc.), establishment of the sources of financing, establishment of any necessary forms of partnership for the realization of the project;
3. Implementation of the project (from the project phase to the physical concretization), including with the continuous and permanent management of the units with the neighborhood.

VI. CONCLUSIONS

The price of the properties is influenced by the proximity of the city center. Each individual has their own needs and their own lifestyle. Therefore, the advantages and disadvantages do not weigh equally for each; varying according to the age, the location of the job, the present or absent functions in the housing area - these are variable factors that must be considered before a real estate investment.

Among the consequences of the phenomenon of uncontrolled extension of urban territories are: spatial dispersion, social segregation of the city population, dysfunctionality of the bordering areas in relation to the central urban areas, disaggregation of the urban territory through the difficulty of accessibility and connectivity of the newly formed areas, the appearance of some types of residences – example: emergence of gated communities, new housing practices under the aspect of new urban culture, loss of local and global urban identity.

One of the dreariest realities of suburban living is all that extra time spent in traffic. Whether you choose to drive your own vehicle or take transit, it's important to factor higher commuting costs into your household budget.

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