

booklet

2024

Faculty of Architecture and Urban Planning
Technical University of Cluj-Napoca

july+

september+

february.25

theses

fau_2023-2024_6th year_diplomas+theses





CONCLUZ



students

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- BURIAN (cas. Focsaneanu) Maria
- MOLDOVAN Dragos - Dumitru
- BARNA Diana
- LACZKO Kata
- LENGYEL Katalin
- NITU - ENACEANU Doru - Constantin
- MOGOVAN Filip - Otniel
- BURZO Paul - Adrian
- PETCU Carla - Diana
- FARCAS Mihai - Razvan
- DOCI Madalina
- BUZATU (Suciu) Madalina Elena
- HADAREAN Estera - Adela
- BUCIUMAN Stefania - Lorelei
- VANCEA Daciana - Briana
- CRISAN Carla - Maria
- MARGINEAN Andreea - Ioana
- CÂMPEAN Paul - Alexandru
- SAVU Ioana - Iulia
- PISLARU Maria - Alexandra
- SAMARTINEAN Iulia
- ILAS Andreea - Carla
- MOISA Daniela Claudia
- CRISAN Ina
- ILIES Andrada - Denisa
- RUS Liana - Georgiana
- BARTHA István
- ROSCA Tudor
- SUT Viorel - Danut
- STEFAROI Octavia
- RUS Oana Alexandra
- CHERECHES - PANTA Andrei
- BAUMLI Orsolya
- GHERGHINOIU Elena - Bianca
- ROHIAN Catalina - Anca
- UNGUR Ioana - Ancuța
- VAIDA Liana - Gina - Carina
- POTOR Codruta - Alexandra
- DANCI Ilie - Daniel
- FRICIU Aurica - Lacramioara
- MICLESCU Denisa - Georgiana
- MOCEAN Ariana - Virginia
- POP Daniela
- CHIBICI Daniel
- TODORUT Adela
- UNGUR Oana-Alexandra
- CHERTES Alexandru - Nicolae
- NITULESCU Sabina - Anna
- SZABADOS Csaba - Tihamer
- FUREDI Robert
- DOBROTA (cas. PADURARIU) Ana
- FOCSANEANU Mihail - Olivian
- HERTEA Ada - Stefania
- URDA Mihai
- EREMEI Calin - Eugen
- MOLDOVANU Vasile
- VOICA Delia - Maria
- NAN Tiberiu Dimitrie Alexandru
- AXENTE Sebastian - Eusebiu
- NARITA Cosmin Virgil
- TÂRNOVAN Ana Marina



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SABOU Iulia - Lorena
ȘOIMOȘAN Radu - Mihai
LEȘCAU Andrei - Radu
NEACȘU Daniel
DUMITRU Alexandru-Marian
POPA Larisa - Sinziana
ALBU Veronica
MOJOLIC Gabriela
ZBÂRCIOG Viorel
BEIANU Vlad - Florin
BUCȘAR Iulia
ELKAN Gloria - Kristy
SPĂTARIU Vlad - Andrei
ISTRATE Iulia - Irina



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- AFRĂSINEI Carla Maria
- BICA Ionuț-Florin
- BOB Andrea Teodora
- BORBÉLY Ágnes
- BURUS Réka
- IGNEA Maria-Tudorița
- MARTINI Maria
- MOLDOVAN Nicu - Marian
- OROS Alexandru-Ionuț
- PORIME Iulia
- SIMON Timea-Hilda
- TODIRAȘ Constantin Cristian

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The Hangar.

An Identifying Element for Aviation Schools

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Keywords: *aviation, hangar, structure, identity, reuse*

Hangar architecture is a relatively new topic in the field of architecture, dating roughly from the beginning of the 20th century. A whole new, briefly-explored field came with a series of architectural requirements. This dissertation seeks answers to a series of new issues regarding this little-discussed field. Is the hangar a contemporary topic that deserves the attention of architects? Does this construction go beyond the functional sphere, acquiring an architectural depth? The paper systematizes a series of case studies to provide a clearer perspective on these types of constructions and their approaches over time. At the same time, the chosen theme refers strictly to hangars related to the aviation field and only to hangars whose main use is storage, excluding the production halls for airplanes. My interest in the field started from the close connection I have with it in due to family context, my brothers and father being pilots. In this way I had the opportunity to carry out research in an extremely practical way and based on case studies that I visited and having people in this specific field that could answer any possible questions.

Hangars appear as purely necessary areas, often made overnight by the engineers working on the aircraft and from cheap and short lived materials. Gradually, hangars acquire deeper valences. Today, the hangar has become a space for meetings, for mechanics, for aviation enthusiasts, but also for the curious or simply for passengers. In addition to the natural engineering ambitions that this type of construction had and achieved - large openings and heights or interesting structural forms - the hangars also came to the attention of architects. Noticing the value of these types of spaces, their potential and the fact that they can become more than industrial halls, hangar architecture really began to assert itself in the second half of the last century.

The structure ceased to be a strictly necessary element, but to assert itself through suppleness, details and materials. Hangar space received adjacent areas, often necessary for better functioning, such as storage or maintenance spaces, thus offering a series of interesting solutions over the decades, both related to space or flows, and related to structure. In more current trends, a certain treatment has also been observed towards old hangars that are still standing. Most of the time, this type of re-conversion was achieved by assigning new functions or partially keeping the hangar function. Many of the projects mentioned in this thesis accommodate new programs such as cultural or sports programs, becoming points of interest for a wider range of users, managing to keep a typical hangar image.

The beauty and quality of architecture becomes truly remarkable when the object it aims becomes more than a structure and more than some materials and surpasses the function for which it was originally thought. Hangars have long ceased to be a simple shelter for an aircraft, and through contemporary architecture they have become true examples of adaptive reuse, sustainability and aesthetics in an impressive field, namely aviation.

A City inside of a Building, a Building in a City. The Relationship between Scenographical Practices of the Opera Show and Architecture

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Keywords: *Architecture, stage design, relationship, mutual aid, experimentation*

The premises of the present work start from the desire to demonstrate the importance of the influence of architecture on opera scenography and vice versa, wanting to emphasize the benefits of multidisciplinary in the two artistic fields, architecture, as the art of creating the space in which people can carry out their lives, and opera, especially the scenography of the operas, as the art of creating a space that together with music can enhance the spectator's life experience. The motivation of choosing opera begins from the fact that both forms of art, both architecture and opera, start from the principle of looking towards the future through the prism of the past. In architecture, the way of working comes with a lot of consideration for the already built environment, the way of approaching a work being extremely similar, in view of the fact that the team of creators is obliged to stage a composer's musical vision, through the lens of personal experiences, while maintaining the tone and logic of the story told through the music.

Unlike theater, which at the moment has overcome the condition and limitations of the setting, the space of a theater performance can be rendered through symbolic and suggestive means, the convention of the opera performance often requires the existence of a setting that reproduces historical, realistic architectural expressions, naturalistic or reinterpreted, due to the rich historical context underlying these works.

In addition to the obvious relationship between architecture and the architectural spaces intended for the performance of opera shows, spaces that clearly mark the relationship between the two fields through the cultural significance of these edifices, through the importance of the study of acoustics and through the technological innovations brought to both fields, the case studies of this work will include examples from the sphere of architecture, interior architecture, urbanism and landscape art, explaining how both architecture and scenography, as art derived and subordinate to architecture, are subject to social and cultural evolution in the European space. The work presents a short historical part, which includes the history of the theater in Antiquity and the Middle Ages, and then, through a series of case studies that address topics related to the sphere of architecture and scenography, it will go through the main periods of history which marked the evolution of society, and implicitly architecture and scenography, starting with the Italian Renaissance, the Baroque period and the 19th century and with its revelatory moment of the total work of art, which will continue into the 20th century.

The 20th century and contemporaneity will lead even more towards circumventing the boundaries between architecture and opera scenography, and the desire for experimentation in the two fields will bring new ways of making architecture and opera performances.

Neighbouring the Railway: The Potential of Railway Brownfields

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Keywords: railway brownfield, urban brownfield, urban regeneration, challenges

Introduction:

This thesis explores various sustainable approaches to reusing railway brownfields, in (post) industrial countries. The paper highlights the main concerns regarding the future of railway brownfields, analysing what can happen - from an urban point of view - to the industrial plots adjacent to the railway when they become abandoned and how they can be reused for the benefit of the community.

The undertaking of the study is strongly related to such existent plots in the city of Cluj-Napoca, which currently attracts the interest of private investors, being strategically located in the proximity of the city center.

Sources and methods:

The research was conducted through the usage of three types of analysis: theoretical studies, practical studies, and an in-depth analysis and visual documentation of the author's personal experience regarding the subject. For this, multiple resources were used, from books and journals to book launches and exhibitions.

Results and discussion:

It has been proven that such urban regeneration projects can revive and reorganize railways' neighbourhoods, for them to function autonomously, rather than individually. These issues are discussed and detailed in the author's diploma project, which follows the design process of a railway brownfield case study in Cluj-Napoca.

Conclusion:

The thesis aims to provide multiple insights regarding the urban regeneration of railway brownfields, providing valuable examples of how the implementation of such existing projects can benefit the residents, regardless of the type of investments made.

Post-war Modernist Insertions in Historic City Centres. A Controversial Heritage

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Keywords: *Modernist heritage, Historical context, Conservation*

Introduction: Throughout history, architecture has always best reflected the social and political situation and the ruling ideology of the time. Historic city centres are the best representations of all the `layers` of our heritage through the ages. In former communist countries, the modernist architecture of the post-war socialist era significantly influences the built environment. This paper focuses on post-war modernist buildings inserted in historic city centres of former communist cities in Central and Eastern Europe, which (partly) respect the historic urban fabric of the area. These insertions are probably the most controversial buildings for the present generations, in this sense, the conservation and the protection of this modernist heritage raise increasingly topical issues. It also addresses the question of whether modernist buildings should be demolished or preserved in their historic context from social, architectural, ecological, and economical perspectives. How can these `other type of modernist buildings` maintain their place in the historical fabric of the city?

Sources and methods: For the historical-typological perspective, Gheorghe Curinschi Vorona's theories of urban reconstruction were studied as a starting point for the morphological and architectural analyses of the modernist insertions, which helped me build the image of another type of modernism inserted into historic centres. The theoretical part regarding the conservation and alteration of these buildings is mainly based on the study of professional journals as Docomomo, as well as the study of the website Építészforum, which, in addition to my own experience, contributed to the creation of a timely perspective on the relationship between society and modernist architecture.

Results and discussion: Society's scepticism towards modern architecture is due to attitudes towards the policies of the communist regime and a lack of research and good examples of conservation and conversion. An unclear question in the former communist countries is how to integrate the modernist legacy of the second half of the 20th century into their national culture. The continuous use, rehabilitation, and protection of these insertions are key elements in their (re)integration into the life of the city, giving them equal opportunities with other historic buildings. The following research presents points of reference, methods and strategies that I can use in my diploma project to transform and reuse 20th century buildings and thus contribute to the rehabilitation of the city centre of Odorheiu Secuiesc.

Conclusion: We can confidently say that modernist insertions are part of the built heritage of historic city centres, and it is therefore the duty of all of us timely to preserve them, especially in ex-communist countries. Modernist architecture of the city centres is a resource for former communist countries in terms of ecology, economy, and sustainability.

From Flâneur to Hyper-consumer: Architectural Complicity between Culture and Commerce in the Capitalist City

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Keywords: *culture, commerce, consumer, simulacrum, spectacle*

Introduction: The thesis aims to identify and discuss the relationships between commercial spaces and cultural spaces throughout industrial and post-industrial modernity and to highlight how they represent each other. At the same time, one of the main topics discussed in the essay is the consumer – subject and its specific attitudes. The emergence of department stores and mass consumption in the second half of the 19th century led to major changes. Initially inspired by the architecture of cultural spaces, department stores used the strategies of the theatre to capture the viewer's gaze. Later, in the 20th century, the elements and strategies of super stores are borrowed and begin to appear in cultural spaces, a gesture that inspired my choice of theme: the complicity between art and commerce, which, beyond their co-dependence for survival in commercial capitalism, goes beyond purely economic aspects.

Sources and methods: The main way in which the paper approaches the theme is through (comparative) analysis of commercial and cultural buildings and spaces, from 19th century architecture to the present day. To study in detail the complicity between culture and commerce, beyond spatial similarities, the paper also highlights the way consumerism appears in visual arts and the place of art in commercial spaces.

The bibliography on which this study is based is made up of texts that are relevant both from an architectural and philosophical point of view (Rem Koolhaas, Walter Benjamin, etc.), in order to understand the built context, and from a social point of view, in order to understand the psycho-sociological phenomenon that constitutes the substance of the theme addressed (Gilles Lipovetsky, Guy Debord, Jürgen Habermas, etc).

Results and discussion: The main discussion points of this paper are correlated to the three main stages of consumerism described by Gilles Lipovetsky as the following: the first phase, that makes products available to the masses (from 1880 to the end of the Second World War); the second phase (lasting roughly until 1990- 2000) is the era of automated production, repetitiveness and standardisation and the third phase, (starting with the Internet age) is marked by the transition from a supply-driven to a demand-driven economy. These main topics are discussed in relation to transformations caused in the built environment that generated problems in urban development that need to be resolved and commercial sites that need to be reclaimed in the present days.

Conclusion: Commerce always reinvents itself to capitalise on culture, making it mainstream and commoditised. This tension between value and capital forces culture to constantly criticize capitalism, art must always expose and overcome this complicity that leaves its mark on the built space of the capitalist city. On the other hand, commerce's ability to adapt spatially and temporally to new consumer demands has left behind large, vacant buildings in the urban space waiting to be reused.

Urban Regeneration of Former Industrial Platforms in Post-socialist Romania

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Keywords: *industry, regeneration, heritage, sustainability, future*

This dissertation examines the evolution of former industrial platforms, focusing on the contemporary opportunities presented by urban regeneration. These vast areas, which played a significant economic and social role in Romania's recent history, are notable for their architectural heritage and urbanistic impact on the regions where they developed. Pertinent questions arise: why did this decline occur, and how can these massive structures, loaded with memories, be reintegrated into the current public space? It remains to be seen how architecture can play an essential role in adding value to these urban regeneration projects, which is also the main objective of this study.

The framework of this study encompasses both theoretical and practical components to understand contemporary issues. The theoretical section addresses architectural heritage and the urban regeneration process. It highlights the formation of industrial platforms, tracing their evolution from inception through deindustrialization to their current state, requiring a transformation that is looking into the future. The second section delves into urban regeneration concepts, examining how its elements can be applied to the industrial architectural heritage, with a focus on conversion and sustainability. Together, these chapters, supported by a comprehensive bibliography, made of books, articles and academic research, facilitate understanding the phenomenon of urban regeneration, its historical context, and its potential social impact. The whole work aims to demonstrate the significance of urban regeneration in transforming and enhancing these historical industrial sites.

The case studies analysed are crucial for establishing the objectives of the studied theme. Three former industrial platforms are presented to illustrate the urban regeneration process and highlight the final outcomes. Each case reflects the themes discussed in the previous chapter and exemplifies best practices. These real-life examples are essential for understanding the site, context, and types of viable interventions. Afterwords, the following chapter connects to the diploma project, reiterating the conclusions from the dissertation and demonstrating how they can be adapted to a new project on a former industrial site. My personal experience with the proposed site and the insights gained from these previous studies serve as a foundation for developing new solutions, from integrating heritage into the landscape to ensuring sustainability and conversion.

The urban regeneration of industrial platforms revitalises neglected areas, fostering community growth. By transforming abandoned spaces into vibrant centers for education, culture, and residential housing, cities mitigate urban sprawl and preserve green spaces. Moreover, it enhances social cohesion by providing affordable housing and leisure facilities, improving the quality of life of residents. Sustainable practices in these projects promote environmental management, mitigating urban pollution and conserving resources. Finally, the revitalization of industrial platforms preserves the legacy while embracing modernity, ensuring that cities remain dynamic. It matters deeply as cities evolve to meet the needs of present and future generations.

Office Space Architecture, Users' Health and Productivity

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Keywords: *office space, comfort, health, productivity, space syntax*

Introduction: The relationship between the users and their working environment is one of the most important aspects in their professional activities. This makes us realize that the built environment has a significant impact on the health and productivity of users. The aim of this paper is to understand the relationship between the design of interior office spaces and user health and productivity. In studying the relationship, it is considered how users experience the interior space and the features involved in the design of the space that can positively or negatively influence the quality of the spatial experience. The study focuses only on aspects of spatial organization that are significant for productivity and health. In this context, the paper analyses the ways of interior organization of office spaces and their architectural and psychosocial characteristics. To achieve the proposed objective, the following research questions were formulated: 1) How does the work environment affect the health and productivity of users? and 2) How does the type of office influence the health and productivity of users?

Sources and methods: This paper is divided into two parts: understanding the theoretical principles of the subject and analysing these theoretical principles through case studies. Literature studies were used to identify architectural features of office space that have an impact on health and productivity. The first case study was based on a literature survey on users' perceptions of workspace in which the impact of spatial and environmental characteristics for the open plan and cellular office was investigated. The second case study focused on analysing how the characteristics of the spatial configuration of the open plan office influence productivity using the spatial syntax method. The analyses were generated using DepthMapX, a spatial network graph analysis program.

Results and discussion: From the results of the first case study, it was concluded that the main disadvantage of open plan offices is the reduced acoustic and visual privacy. In the case of the cellular office the negative aspect was determined by the low possibility of interaction. In terms of environmental factors most dissatisfaction was related to indoor air quality. Following the second case study, some approaches can be identified in the design of the office space that consider physical, functional and psychological comfort. Therefore, circulation planning should be designed in such a way that it does not affect privacy and workspaces should be well delimited to ensure a sense of belonging and psychological privacy. These approaches were also applied in the diploma project.

Conclusion: Based on the user's relationship with the office space we may conclude that the workspace only sustains productivity and health when the physical, functional and psychological comfort is achieved. This study is useful in identifying the key design features that need to be considered while designing an office space given the current context of organizations' competition for improved outcomes.

The Architectural Development of the Territory through Long-distance Trails

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Keywords: *development, rural, comprehensive, context, community*

Introduction:

The dissertation focuses on the study and understanding of regional planning. Taken into consideration the vast approach of this field, the study exemplifies one particular form of regional planning – long-distance trails, and how they impact the architectural development of their surroundings based on their specific purpose.

Sources and methods: In order to complete the dissertation project, a conglomerate of research methods was employed, including: the method of analysis and synthesis, induction and deduction, analogy, the historical method, the comparative method, and the logical method. These methods facilitated the analysis of themes from national and international specialized architectural literature, reports from the European Union, the Managing Authorities of the long-distance trails, and other specialized sources. This approach allowed for the assessment of changes in the built environment within regional developments around long-distance trails, particularly focusing on the case of Via Transilvanica.

Results and discussion: I believe that such a study can be fully comprehended by presenting comparative examples and objectively examining the benefits each one brings. Thus, the paper offers an intrinsic approach to understanding regional planning as a sensible science by comparing three references, from three entirely different areas of the globe. The focus of the study then narrows specifically on long-distance trails, which inherently shape the development direction of the regions, both rural and urban zones. By selecting trails from the same regions as the regional planning projects, the study delves deeper into the specifics of the presented contexts and highlights the architectural goals and consequences of these projects. The diploma project, “Hospitality Hub on Via Transilvanica,” presents the purpose of the Via Transilvanica trail through a holistic and comprehensive approach to the potential of Romania’s rural built environment.

Conclusion: The primary objective of this study is to highlight the untapped architectural potential of territories through the lens of long-distance trails. By analyzing broad frameworks for a comprehensive understanding and then focusing on specific regions characterized by the chosen trails, the study supports the idea that innovative regional planning can revitalize rural areas. Addressing demographic decline and rural depopulation in a participatory and multidisciplinary manner, the study demonstrates how architecture can restore the rural-urban relationship. Initially conceptualized as recreational paths with economic benefits for communities, long-distance trails have evolved into community highways guiding regional development. The focus on the Via Transilvanica initiative in Romania exemplifies the benefits of regional planning, emphasizing the necessity of such initiatives and demanding transparency from involved institutions due to the active participation of local communities and hikers. Ultimately, the study concludes that both authorities and communities need to recognize the benefits of planned territorial developments, with long-distance trails offering a holistic perspective to guide sustainable development for all rural stakeholders.

Regulations versus Guidelines Comparative Analysis: Building Regulations for Hospitals vs. Health Building Notes

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Keywords: *Hospitals, Health, Environment, Regulations, Strategies*

Introduction: Romania has a history regarding the poor quality of the hospitals. This is not only a matter of the system, it is also a matter of the provided environment. The architecture of the building, with its hallways, patient's rooms, courtyards, green spaces and provided light, it's proven to be an important factor in the healing process. At the same time, the healthcare in the UK is well known for it's quality. This dissertation's purpose is to compare the guidelines for hospitals provided by National Health Service (NHS) from UK and the Normative for Hospital Constructions of Romania, in order to notice the main differences and how Romania's approach could be improved.

Sources and methods: The methodology of this comparative analysis is as follows: initially, the historical context in which the documents were created will be examined in order to draw a conclusion regarding possible causes that influenced their character. The actual analysis of the documents will be conducted gradually, starting with the impact on the reader and the structural and superficial differences, and then moving on to analyzing the actual information and how it is reflected in architectural projects in Romania and the United Kingdom. In order to analyze the differences between these two types of approach, the main sources that were used are the Health Building Notes, the Normative for Hospital Constructions of Romania and the document published by the World Health Organization regarding the hospitals of the future.

Results and discussion: The main comparison criteria were the structure, graphics, amount of information and the way each document addresses topics such as sustainability, flexibility, adaptability, design strategies, accessibility and the influence of the internal and external environment on the patient. The analyses revealed that the information found in the Normative for Hospital Construction is too sparse and insufficiently detailed compared to the NHS guides. The NHS guidelines are better due to the quantity of information provided and due to its relevance to the field of architecture and the way the subjects are developed. The subject is directly related to the diploma project, "Center for Physical and Psycho-Emotional Rehabilitation", because the analyzed information applies to the center as well, being a hospital construction according to Law 95/2006 of April 14.

Conclusion: The conclusion is that Romania should place more importance on the architectural aspect of such a complex architectural program. The mandatory nature of the document does not guarantee quality, just as the lack of obligation does not guarantee failure. The solution could be to develop guides similar to those in the UK, which serve as recommendations but provide the architect with a proven method for developing a hospital construction project.

The River between the Blocks

Analysis of the Relations between the Socialist Neighborhood and Hydrographic Planning in Romania

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Keywords: *Urban-river, neighborhood, ecology, urban regeneration, public space*

Introduction: This work examines the interaction and mutual influence between public spaces near watercourses and the socialist-era dormitory neighborhoods in Romania, focusing on the planning strategies and policies for these urban areas.. The aim is to investigate how these two elements interact and influence each other in the contemporary urban environment.

Sources and methods: The study starts with the identification of the chronological changes on the rivers from the socialist period to the present. The analysis consists in identifying the historical and inevitably political events that brought changes to the natural environment. In order to determine these changes, specialized sources were consulted regarding political changes and interventions on water courses in Romania. Last but not least, urban regeneration strategies and books that developed the topic of urban water regeneration were consulted to identify methods of regenerating the socialist heritage.

Results and discussion:

The aim of the work was to identify the optimal degree of urbanization of a river in order to preserve its natural qualities. My diploma is based on the development of a strategy for the regeneration of a socialist neighborhood with such a situation of contact with an urban river.

Conclusion: I believe that within the work I managed to identify a series of important principles useful in the regeneration process of an urban river. Excessive development of natural ecosystems, including urban riverbanks, can have significant negative consequences on their character and naturalness. Although human interventions are often necessary to create functional and attractive public spaces, it is essential that these projects are carried out with respect for the natural environment and with a deep understanding of their ecological impact. Excessive developments that alter the character and naturalness of an ecosystem can lead to the loss of biodiversity, the degradation of ecological functions and the diminishing of the aesthetic and recreational value of these spaces.

Architecture Adapted to the Needs of Pets The Housing Program Adapted to the Needs of Dogs and Cats

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Keywords: *Pet-friendly architecture, Cat and dog-friendly housing, Pet-oriented architectural solutions, Multi-species residential architecture*

Introduction: Architecture is not exclusive to human engagement; it can involve a multitude of species, such as pets, which are diverse and have a close relationship with humans. The aim of this topic is to investigate the relationship between pets, humans, and architecture, and how housing programs can be adapted to the needs of pets, specifically dogs and cats.

The reason I chose this topic is because architecture is not exclusively dedicated to human habitation. From my point of view, when we design a building, we must also consider other species.

Sources and methods: The research started from my personal experience over time with pet ownership and adapting my living space to their needs. A large part of the perspective on the subject came from books and websites, as well as from students' published papers that address the relationship between architecture and animals.

Results and discussion: In the original results of this research, I approached the study from the point of view of housing and workplace environments. Then, I chose to develop the study on housing programs because it is a topic that I have experienced more through personal experience.

The main points of the discussion are about identifying the specific needs of these pets and how this architectural program can respond positively to these needs. The two species of animals have specific needs in an architectural space where they live with humans, whether in Romania, Europe, or outside Europe. The housing program and the animal hospital are connected by adapting the spaces to the needs of both; these spaces are meant to support and promote the well-being of both tenants, both are committed to enhancing animal well-being through thoughtful design, comprehensive care, and understanding of animal needs.

Conclusion: In conclusion, adapting this program to the needs of dogs and cats is an essential aspect of the architecture of modern homes. Integrating design and construction elements that consider the behavior, size, and specific needs of these pets can transform the living space into an optimal environment for the harmonious coexistence of all occupants. Considering the extent of pet ownership and its growth rate, it is a particularly essential element to consider when designing homes as architects or future architects. This topic is important because most of the population owns at least one pet, and their well-being and specific needs should be considered when designing homes.

The Middle City

A Characterization of the Uncertain Urban Space

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Keywords: *the middle, uncertain space, urban reserve*

Introduction: The paper proposes the term 'middle' to define places positioned between two well-defined structures in the city (like the center and the neighborhood). The middle suggests the median placement between two parts, an intra-urban spatial resource that implies a different mode of development. The aim of the paper is to understand, define and study the middle in relation to its potential through rewriting. The interest for the hometown, Brașov, has raised a series of questions regarding its evolution in relation to those spaces of uncertainty. How the middle will respond to external pressures over time is a first question of the paper, followed by: what is the role of the middle in the coherence of the city?

Sources and methods: The study pursues a theoretical position about the middle with the help of four methods: project, essay, field study and photography. The paper is divided into three parts as follows: the first part draws a parallel between the notion of 'the middle' and other terms that define situations of uncertainty (derelict area, void, edge), the second part offers several possible definitions in connection with the position, the consistency, the identity, and analyzes the spatial poses of the middle, at the end, an own point of view about the subject will be displayed.

Results and discussion: Following the analyzes of the case studies, the urban middle is understood primarily as a reserve space, a area of influence for one or more centralities and territorial support that receives the surplus of the city. The degree of resistance over time to external forces is put into question. Two dominant positions on the subject are identified: erasure and rewriting in the idea of uniformity, or keeping uncertainty as a model that changes the rule in the fabric, a fragment of the diverse city. In both situations, the architecture of these spaces is considered to be temporary, even mediocre, 'the middle' being therefore permanently subject to rewriting.

Conclusion: The conclusions affirmed as a result of the research place the middle in a permanence of uncertainty, both at the level of location and of the architectural object. Its dominant function is that of a territorial reserve that responds to the city's needs, being easily adapted to change and progress. In the same way, in order to be able to speak about middle full of meaning, the change to which it is subjected must go beyond the idea of profit, of real estate investment, and have an approach at the scale of the city.

Diversity in the 'Type-project' The Natural Environment in Large Collective Housing Estates Space

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Keywords: *natural environment, collective housing estates, city development, socialist period*

Introduction: This dissertation focuses on the development of cities in relation to the natural environment, emphasizing large collective housing estates built during the socialist period. It is interesting to look at this period because the ideology that controlled the construction was based on standardization and type projects, which caused a lack of identity and monotony of the cities. The paper aims to identify how the elements of the natural environment can intervene in the image of the neighbourhoods and give them a distinctive character and when and how the natural elements are exploited. Growing up in such a socialist neighbourhood, I asked myself certain questions related to its way of organization and the dominant presence of a stream that crossed it.

Sources and methods: Using the case study as the main method, the work has as its main source of documentation the series of magazines Arhitectura, published since the 1950s. This made available to me the systematization plans of cities and neighbourhoods made during the socialist period. By studying these plans, I sought to identify certain recurring environmental directions and ideas encountered in the projects.

Results and discussion: Going through an analysis of the natural environment from the scale of the city, to the scale of the collective housing estate, to the scale of the building, we can observe certain attitudes and principles in relation to the environment and the way the socialist ideologies, which influenced everything that meant urban development, were leaving their mark. Natural elements such as accidental terrain and watercourses become central elements in some projects, while in others their presence is neglected. So how can the potential of these natural elements be exploited to the maximum and become central elements in the city?

Conclusion: The architects of that period were aware of the importance of natural elements and the benefits that their integration into neighbourhoods can bring, but the transition from the project on paper to the one in practice was not always a successful one. They would praise or criticize each other's designs, always looking to improve the design process. For architects, site analysis was and will always be the starting point of a project, so it is important for us to know how to relate to the natural environment we have. And, the easiest way is to learn from the experiences of those before us.

Socialist Infill inside Historic Urban Blocks

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Keywords: *city centre, socialism, urban block*

Introduction:

The paper aims at investigating the urban mechanisms that the Romanian socialist regime applied for densifying the city centre of Oradea. More specifically, it is shedding some light on one peculiarity observed in the historic part of the city: buildings that occupy the heart of the urban block, often with no connection or continuation to the street front: the buildings from the foreground of the 'main buildings'.

Thus, the paper questions the political decisions that led to this rather unusual urbanism, in order to better understand the impact it had on the historic fabric.

Sources and methods:

The main research methods were bibliographic references that yield a dual temporal perspective: on one hand, contemporary papers and research conducted that look into the urbanism and architecture of the socialist period, on the other hand, books and publications that were written during the regime, keeping a critical eye, as most likely censorship scarred all written sources.

Moreover, direct morphologic analysis of the case studies chosen was a vital part of the paper, as cities can be perceived as spatialized history, form cannot be dissociated from the culture and the society that it emerged from. A comparison was made with the similar interventions made during socialism in Novi Sad, whose historic fabric resembles that of Oradea.

Results and discussion:

The middle of the urban block, although physically inside the historic area of the city, is identified as perceptually outside the limits of this 'old centre'. They are vast and uncertain, but hold a great potential for future development. These courtyards can be understood as more than an vague land, they can carry and support the socio-economical activities of the city. Such spaces can add dimension to the historic fabric and buildings located inside the urban block can shape a balanced porosity of the fabric. They are a tool that can densify the city, as well as enhance its pedestrian qualities. The comparison with Novi Sad helped to better apprehend the potential this urbanistic model opens up in terms of densifying the city centre.

The site of the diploma project, an abandoned shoe and textile factory, is in itself an example of this 'local rule' in Oradea: the building started developing in the middle of its urban block and later expanded towards the street as it assimilated multiple plots of land. Hence, the entire study is mere an attempt to better understand the particular urbanistic situation of the diploma project, to discover its strengths and weaknesses, in order to boost or diminish them.

Conclusion:

Empty buildings and vast empty spaces located in valuable areas of the city can no longer be overlooked, in the attempt to maintain our cities from continuous sprawl in the surrounding natural terrain. Spaces and buildings such as those investigated in the paper offer valuable alternatives for densifying our cities.

... to the wall, freeze!

The Structure of the Unprogrammed Space of the Schools

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Keywords: *school, structuralism, framework, structure, socialism*

Introduction: The new educational systems require unprogrammed spaces that encourage children to explore new activities, interact with one another, and find their autonomy as pupils. Within this study are several questions relating to the structure (physical and perceptual) of the empty space. Why did this space become so needed? How is it perceived? How does it form within the building?

Sources and methods: Starting from a theoretical point of view, the study uses the doctrines of structuralism as an architectural manifesto to bridge the gap between the systems of education and architecture, as both stand for the necessity of empty space. To showcase different ways that this space can be formed, the study turns to archetypes. It uses study cases (of build projects and the thesis project) to exemplify how the four structural elements can, besides forming the space, also become an integral part of it – an encouragement of socialization and play among children.

Results and discussion: Starting with the questioning of how the change in the education system influenced the architecture of the school, the study landed on structuralism as a bridge between architecture and education. Using the framework to create unprogrammed space, the study follows the idea that the internal network of the school is just a bigger scale of the school's network within the city, because it uses, after all, the same elements: the archetypes. Is the column just structural or can it become an element of play? What is the relationship between solid and void in the structure? Is the stair a barrier or bridge? How do children relate to the roof of the building? These are the topics that are being discussed in the paper to understand how and why is the unprogrammed space needed and whether are these kinds of spaces perceived as thresholds, „filter” spaces, or just elements of connection. There is also a need to examine how the existing socialist „type”-like buildings can incorporate these non-existing spaces

Conclusion: By researching how the structure of the school is transformed at the same time as the structure of the education system, one can conclude that it is necessary to create structures that allow diversity in the unprogrammed space. To design these kinds of structures one must return to archetypes and use them creatively. The framework, similar to the empty space within the city or the building, is a polyvalent element. It forms the structure of an unprogrammed space, and it becomes an active participant in it too. If that is achieved, the space truly becomes flexible as it doesn't require additional elements to secure a space where socializing, playing, and learning are encouraged

Silos

Re-use, Possible Scenarios and Contemporary Visions

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Keywords: *silo, industrial, conversion*

Introduction: Although relatively a recent construction, silo structures are found in many cases abandoned, becoming industrial ruins. The question is: What is our position regarding them? Which are the possibilities?

Sources and methods: Historical and theoretical articles dealing with this subject, as well as other theses with a similar subject, industrial sites visits and interviews were the surces of the study, but the main focus was on collecting a large number of examples of contemporary projects from books, magazines and websites and chosing and analysing the description of the most outstanding and suggestive of them, in order to research the subject of conversion of reinforced concrete silos and to document the architects' vision of the topic.

Results and discussion: The relevance and influence of the silo in modernism and in Romania, as well as in contemporary approaches, has been pursued. Criteria for structural and aesthetic theoretical analysis have been defined. Given the spatial peculiarities of the silo, the exemplification was made on its components, comparing the intrinsic qualities of the silo with those it can acquire after the intervention. Individualized were the inner interventions of the outer ones and their influence on the perception of space and facade, as well as the formal peculiarities derived from the geometric variety.

The analysis revealed 6 types of approaches, which were described and exemplified with 2 cases each. The approaches were analysed according to previously defined criteria, which led to an understanding of the possibilities and limitations in each case. In addition, the diploma project still provides an example of intervention, as well as research documentation for the architectural program.

Conclusion: The study provides both an understanding of contemporary approaches to silo intervention, the functional advantages and possibilities in relation to the architectural concept, but above all it invites to a more in-depth understanding of the topic of re-use of an industrial structure, not only from a formal point of view, but taking into account its history, context and symbolic value, to generate solutions that carry forward the spirit of the place.

Modernist Housing in Movies

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Keywords: *movies, modernism, housing, cinematography*

Introduction: This paper is going to talk about the role of modernist residential architecture in cinema and its influence on society through the decades. This paper is structured in seven chapters with a different number of subchapters for an easier way to summarize the information. Modernism has shaped our society in the last century, and even today, it still has a huge influence on our day-to-day lives. Cinema as an art form, on the other hand, made its emergence at a similar time, and it quickly became one of the most consumed media for the general population. It slowly evolved and is still evolving, just like architecture does. One good way of following the evolution of modernism, especially in a domestic program like housing, is with the help of films. **Sources and method:** For the reachers, I used direct sources like films from different periods of time and articles, books, and videos that talked about the themes.

Results and discussions: Because of its subjective nature as an artistic medium, it's a good way of seeing firsthand the atitudines that portray modernism at a specific time and place and its evolution. The chapters are going to explore the evolution on screen, the public perception, and the real-life events that impacted the portrayal of modernism in housing projects. After that, I will present some moderist principles and their role in shaping the plot and the characters , and in the end, I will talk about some examples from each period of time and type of houing.

Conclusion: By visiting and dissecting the timeline, I hope it will present a clearer picture of society's ever-changing opinion about modernism in housing projects.

Spatial Synergies: Multidisciplinary Design Studios

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Keywords: *User behavior, Design studios, Creative workflow*

Introduction: This study aims to explore the correlation between spatial configuration and user behavior in co-working spaces within university architecture studios or related disciplines. Its objective is to investigate how the physical environment influences diverse forms of work, whether individual, team-based, communal discussions, or exhibition events, and their impact on creativity.

Sources and methods: The study employs methodologies such as consulting a wide range of global studies, critically comparing case studies from the University of Arts in Helsinki and the Study Pavilion in Braunschweig, and analyzing local study spaces in Targu Mures. Direct observations from personal experience at the Technical University of Cluj-Napoca and a survey on spatial interactions in architecture studios provide additional insights. The goal is to inform the design concept for a new building in Targu Mures.

Results and discussion: The research identified five distinct types of creative spaces, each tailored to specific activities such as individual work, group collaboration, presentations, socialization, and breaks. Each space's unique configuration, including room arrangement and furniture, dictates its primary use, though flexibility varies. User behavior was evaluated based on focus, collaboration, socialization, and learning. The diploma project proposes a democratic and adaptable design for educational spaces, promoting collaboration and social interaction through flexible furniture and partitions. This approach aims to create a dynamic environment that meets contemporary societal needs while fostering a sense of community.

Conclusion: The project shows the evolution of architecture from technical activities to liberal arts and from a practical profession to an academic field. The design process and visual rendering of concepts are central to architects' work. In a digitally connected world, hybrid workplaces require social and professional interactions to counter isolation. The research identified key aspects of spatial organization and interaction quality in design studios, emphasizing areas for focus, collaboration, and informal communication. Comparing case studies highlighted strengths and weaknesses, informing improvements for the university environment in Târgu Mureș.

PREFAB.

The Evolution of Prefabricated Concrete Facade Systems and the Opportunity of Using Them Instead of Traditional Finishes

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Keywords: *Precast, concrete, faade, prefabrication, sustainability*

Introduction: The work aims to highlight the advantages of using precast concrete elements, especially facades, over decorative plaster finishes in the case of repetitive buildings or those requiring a short execution time. It explores the diversity and aesthetic complexity that such facades can achieve. Additionally, the use of precast concrete facades is examined for buildings needing thermal rehabilitation to address maintenance issues related to applied thermal insulation.

Sources and methods: The study is based on a series of academic works, excerpts from books, articles, and research, forming a piece of work that, together with personal perspectives and considerations, aims to express the aesthetic diversity of precast concrete, the improvement of technology in terms of thermal and energy efficiency, and the flexibility in the use of buildings made from such elements.

Results and discussion: Prefabrication is not a contemporary innovation. It appeared during the Industrial Revolution, but at that time it was defined by the process of manufacturing, design, and construction. Nowadays, prefabrication is characterized by efficiency, reduced costs, and sustainability.

The preconception about prefabricated concrete facades is that they cannot compete in terms of design flexibility with traditional decorative plaster or other available finishes. This preconception about prefabrication is also associated in the collective imagination with the apartment blocks from the late 60s and early 80s, a period during which insulation was inefficient and the apartment surfaces were extremely small and inflexible due to poor execution details and undersizing, which leads to additional reluctance. However, technology has advanced significantly since this type of elements were used for communist blocks, and from an aesthetic point of view, there is a wide range of techniques for using concrete.

Moreover, from a thermal insulation perspective, prefabricated concrete becomes an efficient option. Easy maintenance and durability are factors to consider. Concrete facades do not need an additional applied finish, as shape and color are determined during the pouring process in molds. Thus, prefabricated constructions can also create visual identity, while maintaining a uniform character, especially in the case of apartment block neighborhoods. Considering the rapid increase in the number of new constructions and residential blocks, it is necessary to find solutions that meet the high demand for housing without affecting the utility and appearance of buildings, thus, prefabricated elements could be an optimal solution.

The chosen case studies reflect both the evolution of this technology in terms of thermal and energy efficiency, as well as the multitude of finishing possibilities and the achievable aesthetic complexity.

Conclusion: The study concludes that precast concrete elements can be a sustainable, durable, and versatile choice for the realization of structures and facades, especially in buildings that require a short execution time or when uniqueness in repetitiveness is desired.

Resignification. Contemporary Architecture in Historic Environments

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Keywords: *contemporary, new vs. old, significance, historicity*

Introduction:

The topic explores the direction which contemporary architecture is taking, considering the actual political, economic, and social background. This raises several questions central to the subject, that are followed throughout the paper: What principles should guide the process of inserting new architectural objects into valuable existing fabrics? How can we learn from past lessons without historical mimicry, but instead adding value? And, the primary question of the work: How can we intervene in a historical context without affecting the intrinsic value and significance of the place?

Sources and methods:

The study was conducted through bibliographic research and graphic analysis, and through personal experience and on-site visits. The work thus serves as an investigative tool into the project's issues, exploring the relationships it generates both formally (in terms of morphology and construction typologies) and reflexively (through theoretical and intellectual discourse).

Results and discussion:

The main results of the research reveal a very contradictory situation that centres the loss of significance of architecture in the contemporary era, and the efforts undertaken to reestablish it. The topic is also explored through the diploma project, which involves designing an institute of culture and art within Bistrița's historically significant intramuros area. The project follows a broader strategy aimed to revitalize the Omnia Cinema and integrate it into the city's network of cultural spaces, making the new insertion's sensitivity to these premises even more crucial.

Conclusion:

The main lesson is that working with contemporary insertions should be conducted with sensibility and responsibility, in order to contribute to the re-signification of historical spaces, ensuring their relevance and value as a legacy of the future.

Glasshouses. The Evolution of Greenhouses in the Architectural Landscape

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Keywords: *glasshouse, transparency, greenhouse, steel*

Introduction: From their beginnings, greenhouses have been ingenious and minimalist structures designed for cultivating and researching plants by regulating the internal climate. In the contemporary era, with challenges related to global warming and socio-economic conditions, it is essential to stay connected with the outdoors. In Romania, the development of greenhouses is limited, with the country ranking last in Europe in terms of dedicated greenhouse areas.

Sources and methods: This research paper is based on a series of articles, academic works, and personal considerations. For the development and better understanding of the subject, it was essential to analyze existing examples in contemporary architecture and innovative practices used to adapt these spaces to be functional for both plants and people.

Results and discussion: This study follows the historical evolution of greenhouses and the significant transformations they have undergone over time, from their rudimentary forms to the sophisticated structures of contemporary architecture. This invention has travelled a long and complex path. As scientific and technological knowledge has accumulated, greenhouses have evolved from simple constructions meant to protect exotic plants into true works of architectural art. By analysing different greenhouse typologies, we have discovered new innovative practices in approaching the concept of the greenhouse, which have become both aesthetic and sustainable elements in agriculture and architecture, serving as spaces that also host other functions. The diploma project aims to capitalize on this typological evolution of greenhouses by integrating them as multifunctional and educational spaces within the concept of a gastronomy and culinary arts center located at a horticultural research station. Thus, the goal is to create a space that reflects both the horticultural tradition of the station and contemporary architectural trends.

Conclusion: The study concludes that greenhouses are in continuous evolution despite being simple and accessible structures. They have a significant impact on the environment and our daily lives by controlling temperature and being easily positioned in any context, thereby successfully creating ecosystems in diverse environments.

Cohousing for seniors.

Alternative housing models for the elderly

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Keywords: *cohousing, coliving, elderly housing, community*

Introduction: This dissertation examines how senior cohousing communities operate and the beneficial impact they can have on the daily lives of the seniors. It also explores whether this alternative to traditional housing could offer a viable long-term solution to the challenges arising from an aging population.

Sources and methods: This study is based on a series of academic papers, articles, books and research, bringing together complex information critically analyzed along with personal considerations on the concept of senior cohousing, adopting an informative and qualitative approach.

Results and discussion: The contemporary model of senior housing has benefited from a better understanding and organization, due to the “calendar” created by Henry Nielsen, discussed in the third chapter of this paper, along with the six general characteristics that form the foundation of this type of community.

A key element in the informative process is the analysis of three case studies in the fourth chapter of the dissertation. Each example offers new perspectives on this concept and is critically analysed both from a personal point of view and through the opinions of authors and individuals directly involved in the projects.

Additionally, by comparing these three case studies, we can identify the strengths of each community, the mistakes made, and how future communities have learned from the errors of their predecessors.

Conclusion: The study concludes that the alternative to traditional housing, namely senior cohousing communities, can bring beneficial changes to the lives of seniors. However, this is not universally applicable, as it varies depending on the individual, group, and context, each presenting unique characteristics, needs, and principles.

It also discusses the necessary factors for implementing this concept in our local context, through a brief comparison with Denmark, where this idea was first developed and has enjoyed total success.

From Industrial to Residential. How Genius Loci Shapes the Community

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Keywords: *genius loci, identity, community, revitalization*

Introduction: The topic of the research involves a reflexive manifestation of the methodology of implanting the collective memory in the urban space, especially among the communities. The goal is to find an answer, or at least to go through different scenarios through which the memory of the place can be reproduced in contemporary architecture, especially in the former industrial platforms when they are mainly moving towards a residential architecture. The raised questions in this study are:

How do we preserve the memory of the place?

Is it good or not to keep something? If it is, what exactly?

What are the elements worth keeping?

Is there a desire to recover elements of the place?

How do you make architecture be accepted and received by the inhabitants / community, quickly?

Thus, the present paper aims to be a basic pillar of the diploma project and to help identify some needs and attitudes through which the memory of the place can be reproduced.

Sources and methods: The research method I chose for this paper was a qualitative one in which I consulted books, articles and academic essays that were accessed both physically and online. The work contains a historical and theoretical study, the working method of case studies as well as the direct research, through own experience.

Results and discussion: The main points of discussion center around some scenarios through which you can reproduce and reimplant, the memory of a place. I analyzed several concepts such as community, genius loci, urban voids and presence through absence. The second step was to put the scenarios into practice and analyze the contemporary attitudes through which the memory of the place can be reproduced and which can (re)activate the community.

The diploma project is closely related to this research and represents the experimental part of this work, due to the industrial urban setting as well as the memory of the place that I want to reactivate in this place.

Conclusion: This incursion into the analysis of the relationship between the industry, the memory of the place, the community and the industrial heritage primarily shows the insufficiency of the resources available at this time and points at the need and potential of an area in which research is worth expanding. This analysis is not to propose definitive solutions to reconcile different unclear aspects at this moment, but rather explores the dynamics of the relationship between the memory of the place and the community, emphasizing the importance of community involvement in the valorification of a (former) industrial site. The memory of the place not only generates meaning, but also facilitates the recovery of local identity.

Agro-Food Market - Soul of the Community -

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Keywords: *Community development, social interaction, public spaces, local economy*

Introduction: The study seeks to investigate how food markets can benefit urban life beyond their primary function of commerce. The guiding question of this study is: "How can contemporary food markets contribute to urban life by fostering social interactions and supporting community development?". This study was undertaken due to significant role that they historically played in urban center as hubs of social interactions and community engagement.

Sources and methods: This dissertation was conducted using a combination of qualitative methods like field observations in various food markets and analysis of existing literature such as books, academic articles and case studies of successful food markets around the world. The methods that I used to analyse the collected data were qualitative, comparative and architectural and spatial analysis.

Results and discussion: The results of the study demonstrate multiple benefits of food markets, highlighting their importance in social, economic, cultural and environmental domains. One of the main points of this research is the pivotal role food markets play in community interactions. A well designed market space is not just a place for economic transactions, but also social hubs. Another main point is that food markets support local economies by providing a platform for local producers to sell their goods. The study also discussed various design strategies that enhance the attractiveness and usability of market spaces. The study also found that markets often attract people to surrounding businesses, that way revitalising local economies. It also shows that markets should be planned as part of a larger urbanisation, promoting walkability and connectivity with other public amenities. The final findings were directly applied to the diploma project's concept by aiming to create an innovative and community-oriented food market. The project incorporated several key elements based on the research such as: community focus, urban integration, economic support and cultural heritage.

Conclusion: The research conducted on food markets concluded several key points highlighting their importance in modern urban contexts and communities. The main points of the study are: community development and social interaction, economic benefits, cultural and educational value, urban aesthetics and functionality. These findings can inform urban planners and policymakers about the multiple benefits of incorporating food markets in city planning by leading to more sustainable and socially cohesive urban environments. Understanding the economic benefits can encourage investment in local markets, support small-scale producers and ensuring economic diversity. Emphasizing the cultural and educational value of markets helps in preserving local traditions and promoting cultural diversity. The focus on sustainability and public health aligns with global efforts to promote sustainable living practices and reduce environmental impact. These conclusions underscore the vital role that agro-food markets play in enhancing urban life, making them essential components of any modern city looking to community, support local economies and promote sustainability.

Interstitial Spaces in Short- and Medium-term Co-living.

An Analysis in the Context of the Dichotomy between Public and Private

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Keywords: *interstitial, co-living, public, private*

Introduction: Co-living is recurrent in contemporary society, contrasting with classic, individual living and making us question the way it works, as it implies an ambiguity of the concepts of public and private, which directly influence the way of living. The present text aims to focus on interstitial spaces strictly in the context of mediating the public-private relationship, within short and medium-term co-living housing. The clarification of aspects such as the main role of these co-living spaces, but especially how they contribute to the residents' experience, is questioned.

Sources and methods: Once the research subject was established, preliminary research was carried out to identify the relevant specialized literature and points of discussion. **Approached methodologies:** field research, analysis of various documents (books, specialized journals, articles, dissertations, interviews, websites), critical analysis of documented theories. Among the methods used are the interpretive, qualitative, correlational and through case studies methods. **Field research:** own experience of co-living in the short and medium term, observation and collection of relevant information. This involves evaluating the design of spaces, user interaction and other specific aspects.

Results and discussion: After discussing the subject through a contemporary perspective regarding function, it is safe to conclude that in co-living projects, common spaces tend to be the focus of the design process, at the expense of interstitial space. Mostly due to economic aspects of the housing crisis, interstitial spaces seem to be an "afterthought", a utilitarian space born after the concept, from a need to transition between two spaces, or to solve specific problems. There are few examples of co-living that have the interstitial space at the center of the concept, a decisive part of the design process. The research paper culminates in a practical exercise, namely the diploma project, a hotel for patients and relatives. The intention for such a hotel starts from the desire to offer better facilities for patients and their relatives, near medical units in Romania. Seeking user experience improvement, interstitial spaces take on an important role in this "co-living" type project, aiming for a "home away from home" atmosphere.

Conclusion: At the end of the study, it can be concluded that the interstitial spaces, although they do not always have a well-defined function or finite space, create the fabric that connects the private living spaces with the common spaces, fully participating in the quality of life of the residents, in the creation of healthy social relations while respecting their privacy. It is the concept that in the current trend of co-living leaves room for innovation in favor of socialization and combating loneliness.

Contemporary Trends in the Architecture of Educational Programs.

Flexibility, Sustainability And Collaboration

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Keywords: *principles, flexibility, sustainability, collaboration, contemporaneity*

Introduction: Education represents an extensive and complex process that contributes to the formation of individuals, helping them acquire and develop skills, knowledge, and values, aiming to prepare them for life and creating a unique character in society. Education is always a current topic, and the spaces constructed where these activities take place play a significant role and have a great influence on the learning process of children. This paper focuses on the study, analysis, and interpretation of the evolution and contemporary trends in the realization of projects intended for educational architecture, either participating in or awarded prestigious architecture prizes both in Europe and America. What are the contemporary trends in projects intended for educational programs? The purpose of this paper is to identify the way in which we, as architects, can discover the elements that contribute to connecting architecture with the learning process, thus allowing children to discover and perceive the world as it truly is through education.

Sources and methods: The research was conducted by reviewing and summarizing bibliographic sources relevant to the proposed topic. Additionally, I, subjectively and originally, analysed, compared, and interpreted case studies, establishing connections between theoretical ideas and those derived from an in-depth study of the case studies. To document the topic from my own experience, I undertook field visits and gathered information from various sources. Visual representation methods, such as schemes and diagrams, contributed to solidifying the subject of the study.

Results and discussion: The spaces where children are exposed to the educational process influence their perception of education and the information they receive through the educational process. The more these spaces are adapted to the needs of students and teachers, promoting a creative, dynamic, and attractive learning environment, the easier the educational process becomes in shaping the personalities and characters of the children that will be the adults of tomorrow. The principles derived from the research are adapted and incorporated into the diploma project, which involves the creation of an educational center for children.

Conclusion: This paper asserts that contemporary trends used in the design of educational programs have transformed these learning environments into much more flexible and sustainable spaces, where technology is paramount, and the emphasis in the educational process is set on collaboration and learning in creative environments adaptable to various situations. Contemporary approaches place the child and their needs throughout the educational process at the center of educational project concepts, thus generating dedicated spaces that will contribute to the formation of the next generation.

Experimental Architecture for Theatre.

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Keywords: *Experimental, flexible, adaptable, creative*

Introduction: This project embarks on a compelling exploration of the intertwined realms of experimental architecture in contemporary theater, seeking to reveal the multiple ways in which architectural design influences and interacts with theatrical experience in the modern age, starting from the idea that architecture as object can become a fundamental pawn in a theater play, otherwise to demonstrate that architecture can be more than decor and become an actor.

Sources and methods: Delving into a diverse range of bibliographic research, the paper will address both structural aspects such as the technologies and innovations, as well as the philosophical, sensorial and timeless aspect at the same time.

Results and discussion: In addition for this paper to be more accurate we look back at a few examples that slightly express interest into the experimental factor of architecture for theater. In these projects we can point out some of the factors that demonstrate the ongoing concern for finding new ways to display performances like Epidaurus Theater which is site-specific theater that uses the environment for placing the construction, forming circular shapes that have great acoustics, Teatro Olimpico for the great innovation and use of three dimensional decor that enhances real urban or rural spaces for the plays to feel more realistic. The last example showed in the historical perspective is The Globe which is a very unique way to present the play in a semi-open stage but with the area of public covered, arranged in a circular shape combining the other two examples I have mentioned.

In the contemporary age we find new ways in which theater is presented to the world, with a few innovative concepts that exceed traditional limits like Pop up Theater, in which the plays take place in the most unconventional spaces such as parking lots, abandoned train rails and even theater that can be folded in minutes and transported anywhere in the world, bringing the performative art to a larger public and making it more accessible. Followed by temporary installations that bring more creativity in one box than a whole building could ever make, emphasizing on the sensory experience and immersiveness of the audience, both concepts making the clear borders of what is play and what is public fading away. Addressing the technical details and innovative ways that experimental architecture for theater has made.

Continuing to elaborate on the collaborative process between the two fields (architecture and theater), the sensory experiences, concluding the paper with the development of the theme in connection to my personal project that involves the adaptation of an existing building of a cinema into a studio theater that uses the principles listed above.

Conclusion: In conclusion experimental architecture for theater redefines the traditional roles of space and structure, transforming architecture from a simple background to an active participant into the performance while all the concepts listed in this paper support this idea.

Medieval Squares in Mining Settlements. Spatial Heritage of Rimetea Village

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Keywords: *square, mining, medieval, restoration, regeneration*

Introduction: The main subject of this research was to investigate the spatial characteristics of the medieval square of the village of Rimetea in the perspective of the medieval mining squares and to find practical solutions in the case of interventions in such spaces.

Sources and methods: For this reason I have compared similar medieval squares of mining towns in certain territorial limits and I have established several criteria of spatial characteristics and contemporary problems inspired from relevant bibliography. Visits of several studied squares as well as meetings with people involved in the heritage conservation of Rimetea played an important role in responding the arising questions.

Results and discussion: . Through this study I have found out that mining characteristics of such squares merely exist and these spaces are defined rather by the period in which they were realized as well as by territorial and geographical features. Typical mining features can be met in the larger scale of mining towns or in some details, rather than in the structure of the square itself.

Conclusion: Altogether this study highlighted the authenticity and the questionable changes made on the square of Rimetea by discussing historical elements and actual problems at the same time and it gave me a helping hand in finding solutions on the restoration and regeneration of the central square of Rimetea, that is a significant part of my diploma project.

Life, a Factory.

A Study on the Development of Research Stations and the Process of Ecological Restoration

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Keywords: *restoration, ecology, research, landscaping, community*

Introduction: The current dissertation, “Life, a Factory”, focuses on the study of three main subjects, urban natural parks, the ecological reconstruction process, and research stations, all of them will be analyzed through an environmental and architectural lens to find a suite of principles and well-thought initiatives with the main goal of improving Bucharest’s actual and future wild green areas.

Sources and methods: To achieve a better understanding of the subject, a suite of research methods was implemented, such as interviews and constant dialogues with Bucharest’s natural parks administrators, the method of analysis and synthesis, induction and deduction, analogy, and comprehension through analyzing the historical narrative of these wild areas. By using sources such as specialized architectural literature, official historical documents, scientific works, and information provided by the European Union, the dissertation tries to comprehensively understand the subject matter. Finally, by cooperating with Ana-Maria Maier(USAMV Landscaping student), the dissertation and the diploma project reached a greater level of completion.

Results and discussion: The paper approaches three different themes, to fully understand them the research tries to prove their benefits and how a somehow common history ties these subjects together. By presenting a comparative analysis of three “wild” areas around the globe the text will try to prove how such initiatives can be implemented and prove themselves crucial for the future development of dense urban areas. Obviously, besides the landscaping and ecological aspects, the paper will dive into the theme of research stations, how the architectural object evolved over the years, and how this remote building became in recent years an inherent part of the relationship between the city, its citizens, and natural urban reserves.

Conclusion: The research will try to prove the necessity of the ecological restoration process and research stations within the capital’s natural parks. The architectural proposal, as well as the study, aim to provide an overview of environmental issues and simultaneously outline possible solutions based on already known information. Both natural and architectural spaces can be platforms for education and community building, thus the two can produce relevant results in the proper functioning of society concerning the environment and the climate crisis. There are numerous scientific institutions and communities concerned with the conservation and study of biodiversity in Romania; however, there is currently no governmental entity whose interest is focused on ecological reconstruction. All 19 ecological restoration initiatives in the country have been undertaken by WWF Romania, a private organization, and the management of the natural parks in Bucharest is carried out by the Văcrești Delta Association, also a private entity.

The Negative Impact of Failed Architectural Projects on Communities and Their Contribution to Ghettoisation.

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Keywords: *failed architectural projects, urban planning, social impact, ghettos, sustainable development*

Introduction: The dissertation explores the significant issue of the negative impact of failed architectural projects on communities. The primary aim is to highlight the deep connection between architecture and quality of life, emphasizing that architecture is not merely an aesthetic or technical exercise but a practice with direct and tangible effects on how people live, interact, and develop. The research question centers on understanding the causes and effects of architectural failures to prevent their recurrence and improve urban planning and design processes.

Sources and Methods: The research involved a comprehensive review of specialized literature to understand the complex phenomenon of architectural failures and their social consequences. This included analyzing case studies of failed architectural projects and their roles in the formation of ghettos and areas with poor reputations. Various methods were employed, including document analysis and case study evaluations, to investigate the socio-economic impacts and derive lessons for future urban planning.

Results and Discussion: The research revealed several critical findings. Failed architectural projects often exacerbate social and economic inequalities, leading to the development of ghettos characterized by high population density, poor infrastructure, and precarious living conditions. These failures typically result from neglecting social and human aspects in urban design. The discussion highlights the importance of integrating social considerations into architectural practices to avoid negative outcomes. The study also identifies valuable lessons from past mistakes that can guide more sustainable and effective urban planning and design in the future.

Conclusion: The dissertation concludes that understanding and learning from architectural failures are crucial for developing responsible and sustainable urban environments. By addressing the root causes of these failures and incorporating more inclusive and sustainable practices, architects and urban planners can significantly improve the quality of life in urban communities. The findings underscore the need for a holistic approach to urban development that prioritizes both functional and social aspects.

The Art of Detail in Bukovina Architecture. Ornamentation of Wood and Plaster Applications

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Keywords: *cultural identity, symbolic motifs, traditional architecture*

Introduction: The thesis's argument emphasizes the principles of Romanian decorative art in relation to today's idea of the "complete detail", which is able to work with the whole. This relationship between the symbolism of Romanian traditional ornamentation and today's perception of detail, will create a possible interpretation of their meaning in contemporary design. The main question around which the work will be shaped will be: Do details give meaning to the building, or does the object give meaning to the details?

Sources and methods: As a research method, I chose to use classical methods, by documenting various sources, in order to obtain a comparative synthesis analysis of what detail was in traditional architecture, and what it could be today.

Results and discussion: The objectives propose on the one hand, the understanding of symbolism and technique, aspects that were theorized in a period of interest in the study of Romanian folk art, and on the other hand propose a current perspective stated in different concepts in the modern and contemporary period respectively. The second objective investigates through the chosen theoretical perspectives what detail could become today, and how it could take into account certain principles. The desire to preserve the heritage of Bucovina and its traditions were also among the objectives of the diploma project. The project succeeds in translating the intentions of the details and in setting the boundary between the poetic and the pragmatic side of the architectural project.

Conclusion: I believe that among the factors that determine the character of a project in a rural area, there must be a connection with tradition, with the crafts of the rural community. In this way, the complexity of the factors will create a complete architecture with an impact on society, which will bring spiritual richness to the architecture created. The multi-sensory experience of an architectural project is expressed through a rational image, by pursuing this connection with the past. The detail does not have to act on the object, but interacts with the whole, as it is not the details that give meaning to the building but rather the object itself gives meaning to the details. The image of the building would not be complete if all aspects were not taken into account, the elements of the building work together with the details to provide an expressive architecture.

Urban Leftovers. Adaptive Reuse of the Abandoned Industrial Heritage and Its Reintroduction in the Urban Fabric

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Keywords: *adaptive reuse, industrial heritage, urban leftovers, success factors, community revitalization*

Introduction: The main purpose of this study is to identify, analyze and understand the methods of approaching adaptive reuse and the ways of reintroducing abandoned industrial structures into the current urban fabric and environment by debating specific issues, such as the influencing factors that lead to successful functional reuse or by answering questions as to why architects should opt for adaptive reuse, instead of building anew.

Sources and methods: The research was conducted using both primary (official documents; books on the subject), and secondary sources (disserations; articles). Because the study of adaptive reuse of abandoned industrial heritage buildings focuses on a contemporary, ongoing topic over which we, as researchers, cannot exercise control, multiple-case study research was chosen as the main method of analysis, while presenting the results from a more explanatory than descriptive perspective.

Results and discussion: Each case study was chosen due to its unique variant of successful adaptive reuse of abandoned industrial heritage. All interventions were made out of respect for the architecture and local history, valorizing them and saving them from oblivion or demolition. From the standpoint of influencing factors, the thorough analysis of the case studies shows that each project's adaptive reuse has a positive impact on the environment and local community, the existing industrial architecture is kept, put on display and enhanced, the neighbourhood's attractiveness is improved, and the public can experience one-on-one the rich history of each industrial site.

The correlation between this research and the diploma project is highlighted by the adaptive reuse methods applied to existing, abandoned industrial buildings in Cluj-Napoca and the emphasis of repurposing those industrial urban leftovers into contemporary art and cultural spaces, the same as in the case studies chosen for this research.

Conclusion: Abandoned industrial sites are a specific class of industrial heritage. They influence greatly the image of a city and the quality of the urban fabric of which they are a part of and still represent an undervalued or ignored resource. The recovery of these urban leftovers through their adaptive reuse, not only supports the principles of sustainability and contributes to the revitalization of the related communities, but is also a method of preserving, valorizing and perpetuating local history and culture. This research plays a minor role in public awareness in relation to adaptive reuse of industrial heritage as a viable alternative to its demolition.

Pathway to Culture.

Spatial Sequences in the Interplay between Cultural Buildings and Public Space

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Keywords: *pathway, journey, transition, arrival, culture*

Introduction: In contemporary architecture, there is a growing emphasis on creating holistic experiences that begin long before a visitor enters a building. This study seeks to explore how the spatial sequences leading to cultural buildings respond to this trend, focusing on how the principles outlined at a theoretical level are applied in the most eminent cultural projects of the last 15 years. The research aims to find an answer to the following questions:

What are the key elements for creating a memorable route to cultural buildings?

What are the current trends and recurring patterns in contemporary architecture used by architects to create memorable pathways?

To what extent are the theoretical models applicable to the most eminent cultural building projects of the last 15 years?

Sources and methods: The study used several research methods, including documentation of current theories on the subject, in-depth analysis of eloquent case studies based on principles enunciated by contemporary academics, and personal visits to architectural sites. This multifaceted research allowed for a thorough exploration of the research questions and provided a solid basis for the study's conclusions.

Results and discussion: The results of the case studies confirmed that the principles developed by the theorists are valid and applicable to contemporary projects. However, the model drawn at the theoretical level is far from reality, treating superficially some interdependencies that obviously occur between the defining elements of the conceptual model. The research findings relate closely to the diploma project, which envisions a socio-cultural center designed with these principles in mind. By integrating these design principles, the project aims to create a holistic experience for visitors, starting from the moment they approach the building. This ensures that the journey to the entrance is as meaningful and engaging as the interior spaces, thereby enhancing the overall visitor experience.

Conclusion: The study demonstrates the applicability and profound impact of contemporary principles in creating meaningful and memorable approaches, but also reveals that the model presented by the theorists is far from exhaustive and that there are many possible directions for further and more in-depth study, for which the present research presents a thorough framework.

Inclusive Living Spaces. Spatial Aspects

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Keywords: *privacy, community, human scale, semiprivate space, semipublic space*

Introduction: The primary subject addressed in this dissertation thesis is social inclusion within the current urban context. Given the present urban growth and the acute need for social housing, which is well recognized by local and national administrations, social inclusion stands as one of the most important objectives of the built environment, as reflected in the Romanian National Housing Strategy 2022-2050. The fundamental question of this thesis is: what spatial characteristics must a building or a complex of buildings possess to facilitate social inclusion? Through this work, I have sought to better understand the spatial considerations that foster social interaction, thereby facilitating social inclusion.

Sources and methods: The research methodology is based on a bibliographic study and applied spatial analysis. The theoretical analysis is complemented with images and diagrams, aiming to highlight the four identified categories of spaces – private, semiprivate, semipublic, and public, by illustrating different usage scenarios and their characteristics. To identify the characteristics of the studied space categories, they are compared based on their nature, access modes, human needs fulfilled, ways of interaction, and the social groups they address.

Results and discussion: To understand how the built environment influences people's social behavior, it is essential to comprehend both how individuals perceive and interact with space and the essential needs they have from a particular place or space. Humans interact with space through their senses, which perceive different levels of detail depending on the distance from the subject. Thus, four categories of proxemic distances can be identified: intimate distance, personal distance, social distance, and public distance. Furthermore, the culture to which an individual belongs significantly influences how they interact with their environment and those around them. The four identified proxemic distance categories manifest into four types of spaces: private, semiprivate, semipublic, and public. Most social interactions occur in semiprivate and semipublic spaces, which are the areas where social inclusion takes place. In my diploma project, I aimed to apply the spatial considerations identified through this study. The project focuses on increasing the number of social housing units in the Municipality of Cluj-Napoca. It also aims to foster social interactions among residents, thereby enhancing social inclusion through the design of the space.

Conclusion: Social inclusion results directly from social interactions among people. When individuals interact, they come to know and understand each other's behavior better. Most social interactions occur in semipublic and semiprivate spaces. To encourage interactions and achieve social inclusion, these spaces must be included in the urban environments and buildings we design. Thus, architecture must primarily address the needs and senses of humans. A space designed without attention to human needs and the way people interact with their environment deprives individuals of some of their most important needs, such as the need for intimacy, variety, community, and social interaction.

The Connections Between Public Monuments, Space and the Urban Environment in the Monumental Ensemble of Târgu Jiu.

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Keywords: *Public Monuments, Urban Environment, Cultural Heritage, Târgu Jiu, Brâncuși*

Introduction: This research aims to investigate the complex relationships that exist between public monuments, space, and the urban environment, with a particular focus on the Monumental Ensemble of Târgu Jiu. The objective of this research is to examine the interactions between the Endless Column, the Gate of the Kiss, and the Table of Silence—three of Brâncuși's most famous sculptures—and their urban environments. It aims to comprehend how these pieces of art contribute to the region's cultural relevance, tourism, and encourage community involvement. The dissertation seeks to shed light on these factors in order to discuss the possible benefits of incorporating monumental art into urban design and how it might enhance a city's social and cultural fabric.

Sources and methods: A combination of qualitative and quantitative research methodologies were used. Academic journals, publications on cultural heritage and urban planning, and case studies of comparable public monuments around the globe were all considered primary sources. A contextual understanding was also obtained through site visits and photographic documentation of the extant Brâncuși sculptures. These techniques made sure that the existing cultural infrastructure and the possible effects of a new exhibition and cultural center were thoroughly analyzed.

Results and discussion: The study revealed Târgu Jiu's urgent need for a cultural and exhibition center, emphasizing the gap between the city's rich Brâncuși legacy and the current dearth of infrastructure to foster cultural interaction. The improvement of the visiting experience, the promotion of regional and national art, and the function of such a center in promoting communal cohesiveness are important topics of discussion. These results immediately influence the diploma project, highlighting how crucial it is to close these gaps by establishing a venue that pays tribute to Brâncuși's legacy and enhances Târgu Jiu's cultural landscape.

Conclusion: A deep interconnectedness is revealed by the study on the relationships between public monuments, space, and the urban environment in Târgu Jiu's Monumental Ensemble. The Endless Column, the Gate of the Kiss, and the Table of Silence are three of Brâncuși's sculptures that are thoughtfully positioned along Calea Eroilor to improve the spatial narrative and promote contemplation. These monuments structure pedestrian flow and interactions while also adding historical and cultural relevance to the urban landscape. This partnership serves as a reminder of how crucial careful urban planning is to the creation of significant public areas that respect history and enhance modern urban life.

These monuments transform the urban environment, not only beautifying it but also infusing it with historical and cultural significance. They serve as focal points that structure the urban space, influencing pedestrian flow and interactions. This arrangement fosters a deeper connection between the residents and their heritage, promoting a sense of pride and continuity.

Is There Sustainable Development after Mining?

Re-imagining Post-mining Brownfield Sites - Transforming Abandoned Post-mining Brownfield Sites as Sustainable Tourism Destinations - Căvnic Case Study

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Keywords: *abandoned industrial areas, post-mining areas, abandoned zones, revitalization, tourism, evaluation, sustainability*

Introduction: The main theme of the dissertation focuses on the sustainable development and revitalization of abandoned post-mining sites, focusing in particular on the transformation of these areas into tourist destinations. The study aims to evaluate and recommend different methods of transforming abandoned industrial areas resulting from previous mining activities into sustainable and economically beneficial tourist attractions. The research question driving the study is: How can post-mining brownfield sites be sustainably revitalized to enhance local development and environmental conservation?

The study was undertaken to address the negative impacts that abandoned mining sites have on the environment and local communities. Regarding the personal connection with the city of Căvnic, a former mining center in Maramureș, Romania, it motivated me even more to explore practical solutions to transform these neglected areas into valuable community assets.

Sources and methods: The dissertation work was carried out through a combination of theoretical analysis, case studies and practical methods. Key sources used in the paper included academic articles, legislative documents and reports on the sustainable development and management of post-mining sites. The study also involved field research in Căvnic, including interviews with local stakeholders and a survey of residents to gather their perspectives on the current state and potential future uses of brownfield sites.

Case studies of successful international projects were analyzed to identify models and strategies that could be applied for the revitalization of post-mining sites in the town of Căvnic. The methodological approach also included ecological and socio-economic assessments of specific disused areas in Căvnic to determine the most suitable revitalization strategies.

Results and discussion: The research findings highlighted several key findings. First, there is a strong community desire to turn abandoned mine sites into green spaces and recreational areas, with 60% of survey respondents favoring this approach. Additionally, 30% of respondents supported reopening mines to create job opportunities, indicating the need for balanced development strategies that address both environmental and economic concerns.

Discussion points focus on the potential for integrating native vegetation, creating recreation areas, and repurposing historic mining buildings into new functions, such as cultural centers or wellness facilities. These interventions are intended not only to improve the aesthetic and ecological value of the areas, but also to generate new economic opportunities for the local population. These findings relate directly to the diploma project, providing a practical framework for the architectural and landscape interventions proposed in Căvnic. . The project includes detailed plans for ecological rehabilitation, architectural preservation and tourism infrastructure development, drawing on international success stories to ensure sustainable and community-oriented outcomes.

Conclusion: The research concludes that sustainable revitalization of post-mining brownfields can bring significant benefits to affected communities by transforming brownfields into opportunities for urban and economic regeneration. The integration of sustainable development principles and the adaptive reuse of existing structures are crucial to the success of these projects.

Căvnic's case study serves as a model for other communities affected by mining, and thus demonstrates how innovative approaches can transform abandoned sites into valuable resources, improving quality of life and stimulating economic growth. These findings matter because they provide a roadmap for policy makers, planners and investors interested in harnessing the potential of brownfields to contribute to sustainable community development and environmental conservation.

Valorization of the Industrial Heritage in the Proximity of the River Mureș, City Târgu Mureș, Romania.

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Keywords: *industry, conversion, vegetation, sustainability, connection*

Introduction: The main aim of the dissertation is to activate the Mureș River by converting industrial sites near the water, as a green corridor. The study was carried out due to the need to rehabilitate industrial areas in ruins, these areas influence the image and safety of the city. All these observations lead to raising the quality of life in the city. The subject was approached from macro to micro scale. The paper begins with the industrial history in Europe, then with the industrial history in Romania, after that the subject was approached at the level of Mureș County, following that the theme will be approached at the level of the city of Târgu Mureș, by identifying all the industries and approaching the analysis of four industries near the Mureș River.

Sources and methods: The critical apparatus through which the subject of the dissertation was approached is formed by the knowledge acquired over the years at the Faculty of Architecture, books read specialized on the subject addressed, magazines read, documentation of statistics, research on the website and analysis of the cities studied.

Results and discussion: The methodology approached was by analyzing the locations through six sub-points. Connections with the natural framework addresses the possibility of the studied location to connect with the river near the site and the analysis of the surrounding green spaces. The position in the city approaches the distance of the site studied in relation to the city center, the connections with urban mobility and the specificity of the place. The free spaces address the ratio of the area not occupied by constructions on the site premises. Volumetric characteristics address the architecture of the buildings on the premises of the studied plot and the possibility of converting existing buildings. The brief description addresses the history of the industry and its evolution to date. Sustainability addresses the issue of industrial site pollution and methods by which the existing situation can be improved through sustainable solutions. The original results obtained from the research were the identification of opportunities on the site, the identification of local needs, the identification of buildings with potential for conversion, the identification of free-open spaces for the public on the site and the discovery of sustainable solutions for the studied location. The degree project relates to case studies by implementing solutions found in case examples.

Conclusion: Conclusion of research of valorization of the industrial patrimony in the proximity of the river Mureș, City Târgu Mureș, Romania is that we can value the heritage of industries by preserving abandoned buildings and transforming industrial spaces into new architectural programs that respond to local needs. Industry has played an important role in the development of the city and can continue to exist through other functions and sustainable solutions. These aspects are important because they will impact the city on a social-cultural, economic and ecological level.

Sensory Integration in Therapy Spaces for Children with Autism Spectrum Disorders.

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Keywords: *Sensoriality, Autism, Environment, Children, Senses*

Introduction: The purpose of this research is to investigate relevant tools and strategies for educational spaces, with a focus on meeting the specific sensory needs of children with autism. The study concentrates on understanding the physical, psychological and sensory needs of children diagnosed with conditions on the autism spectrum, highlighting the crucial role architecture plays in addressing contemporary issues. Altering the physical environment by balancing stimuli like color, light, texture, acoustics, and orientation can modify autistic behavior or create learning-friendly spaces. My decision to focus on this area stems from personal experiences gained through volunteering with children with autism, deepening my insight into their environmental challenges and its impact on their behavior and well-being.

Sources and methods: In my dissertation on the subject of sensory environments and their relationship with autistic behavior, I employed a variety of research methods to gain a comprehensive understanding of the topic. Initially, I conducted a literature review to establish a solid foundation of knowledge on existing theories and studies related to sensory environments and autism. This involved analyzing academic articles, books, and reports to identify key themes and gaps in current research. Following the literature review, I carried out interviews with professionals in the field, including educators working with autistic children, and occupational therapists. Furthermore, visiting two centers without prior sensory design allowed me to observe the direct need of implementing such environments on their occupants.

Results and discussions: Initially, I began with the examination of general design guidelines for spaces accommodating children with autism, focusing on comfort, safety, and facilitating communication. However, these guidelines were found lacking in specificity, particularly in addressing the unique sensory sensitivities of children with autism. Further exploration identified two architectural strategies: the neurotypical approach, involving minor adaptations to standard environments; and the sensory approach, which tailors environments to meet the specific sensory needs of children with autism, considering factors like lighting, color, texture, and acoustics to create supportive and stress-reducing spaces. My dissertation strongly advocates for the sensory approach, highlighting its effectiveness in addressing the unique sensory needs of children with autism and providing recommendations for future projects to ensure they are genuinely supportive and beneficial.

Conclusion: My thesis concludes that children with autism display heightened sensory sensitivity, ranging from hypo- to hyper-sensitivity across sensory domains. Environments for them must therefore be flexible to accommodate the diversity of autism spectrum conditions. Addressing sensory stressors in visual, auditory, vestibular, olfactory, and tactile aspects involves prioritizing natural lighting, using neutral colors, and optimizing acoustics to distinguish between noise-prone and quiet areas. Effective spatial zoning helps manage activity levels, with clear floor plans aiding navigation. Tactile stimulation, facilitated by various materials, supports spatial awareness. High odor sensitivity necessitates separate toilet and kitchen facilities, complemented by sensory gardens for olfactory stimulation, enhancing the overall sensory experience.

The Architecture of Natural Light in the Underground Space.

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Keywords: *underground, natural light, space*

Introduction: The main theme of the dissertation work is the exploitation of the way in which natural light can be used and integrated effectively in underground spaces. The choice of this theme is motivated by the role of architecture and light in everyday life, by the experiences it can bring, both sensory and emotional. The purpose of this work is to investigate the means and methods of design for light in the underground space and taking into account the diploma project that involves a wine cellar, I considered that in addition to the entire technological production process, an equally important part is the building's environment and user experience. There are multiple reasons to build above ground, but it is worth asking ourselves some questions related to underground constructions, questions with the help of which I started this research: What do these constructions entail? What do these constructions mean? Can they affect the people around them in a negative or positive way? And by what elements can welcoming spaces be created in such a dark and lifeless environment, taking into account the first impression we get when we hear the word "underground"?

Sources and methods: The study method I used is argumentative and the historical perspective related to light and how it has been integrated since antiquity is used to then present the contemporary devices and analyze the case studies that are representative of this subject, for a good understanding of the chosen theme. As sources, I documented myself from books, articles and journals as well as websites.

Results and discussion: This research provides significant results for the improvement of practice in the field of architecture. Light can become a primary tool in design, bringing great benefits both to the building itself and to its users. Moreover, light has a huge influence on beings by allowing the rhythm of life, day and night to affect life, but also to be reflected in space. The main points of discussion are the light that results from its role for man and for a building, with its psychological and physiological effects, the underground space in which it is integrated, the specific lighting devices for the underground space, but also the works of architects that illustrate different integration techniques of natural light underground. All these main topics contributed to the study of the diploma project through topography, where the building is partially semi-buried and camouflaged in the entire landscape, and the understanding of how light influences several factors led to the marking of important areas in the project and in the guided tour of wineries.

Conclusion: Therefore, I consider that this research is relevant for the development and improvement of contemporary and future architectural projects, because a good design with the help of light involves understanding the surrounding space and the user by creating a functional, aesthetically pleasing and energy efficient environment.

Multifunctional Rooftops.

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Keywords: *multifunctional rooftops, sustainability, challenge, greenery, social cohesion*

Introduction: The main topic of the dissertation is multifunctional rooftops. The aims of the study are: to define and understand what a multifunctional rooftop is, what are the benefits of its use, what are the challenges, what functions can be combined for added value, what kind of multifunctional roof is suitable for a specific building. The study was undertaken in order to document myself on the subject and to implement the knowledge in the process of design of a multifunctional roof in the diploma project. The research question is whether multifunctional roofs are the future?

Sources and methods: The research was based on study case method. I have selected some examples of projects that seemed relevant to me through the proposed multifunctional rooftops. It is a relatively recent concern, that is why I found few documentation sources. The basis of the study was The Rooftop Catalogue, developed by the architecture studio MVRDV and web sources.

Results and discussion: The result of the study support the opportunity of using multifunctional roofs. The space can be used much more interestingly and efficiently vertically. Roofs can supply the need for space for activities that require large areas, such as recreational and cultural activities, sport facilities that are very important for social cohesion. The main discussion points concern the greenery, the variety of architectural programs, the sustainability concept and beautiful views. They relate to the diploma project by transforming the roof of the food market into a large square. This square will ensure the need for leisure and entertainment spaces, for cultural and civic activities, for greenery and social cohesion. Sustainability is a main concern due to the changes we might face in the future. It will become the new point of interest in the area.

Conclusion: The research lead to some important conclusions. Roofs can solve the problem of lack of space for sports, cultural and educational activities. The ultimate goal, is to create a more inclusive and diverse city, a city for everyone, mixed-use neighbourhoods, a more liveable and healthy city. The subject is relevant considering the current urban challenges and the changes that occur. I intend to deepen the study as I believe it will be useful for my future professional practice.

The Fragment as an Element of Communication Against the Context

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Keywords: *fragment, Context, Integration, Volumetry, Neighborhood*

Introduction: This thesis follows the methods on how a big scale building can be fragmented in contrast with it's own neighborhood context. This theme started with the premise of my diploma project, where I had to insert a new marketplace in my hometown, Baia Mare, being as a form a big volume. The issue started with the fact that the building created a huge contrast with the very fragmented neighborhood, creating a very alien figure. As such I started to research methods used by architects from differite zones and times to solve this corelation between form and context.

Sources and methods: For this thesis I used a lot of very vast types of sources such as books, magazines, web pages, interviews and video materials, for a better view over the reasoning behing the form fragmentation of buildings in a very similar situation as my project, where they had to insert volumes of big gabarite in very fragmented neighborings. As such I compared them between and created approach categories.

Results and discussion: The result of my study showed 3 main types of approaches. First, where the volume is fragmented in a way to blend in the context. The second one is on the oposite side, making the volume a focus point, ignoring the scale of the context, and a 3rd one where the architect created a balance between context and individuality, making the building stand against the context, but at the same time being able for the viewer to view the form as part of the context.

Conclusion: This thesis helped me finding the methods of approaching the form fragmentation, in the context of my diploma, and how fragmenting a volume can help me break visual the opulence of the project scale in a way of inserting something new on the plot of a town history.

Transforming Industrial Spaces into Residential Spaces.

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Keywords: *Industrial transformation, Residential conversion, Affordable Housing*

Introduction: This study explores converting former industrial buildings into residential spaces, aiming to demonstrate that residential use is a viable option for abandoned industrial sites, despite initial considerations. It began by examining how these spaces can effectively serve as housing. The research theme arose from the surplus of industrial spaces in countries transitioning to a post-industrial era. Not all sites are suitable for cultural functions, and in the real estate markets of post-totalitarian Eastern and Central European countries, such as Romania, there is a critical need for affordable housing for youth and vulnerable groups. Transforming these spaces could address these complex challenges.

Source and methods: The research on this topic involved theoretical documentation and critical analysis of various case studies from Eastern and Central Europe, Romania, including the city of Cluj. The methods employed were divided into two stages: theoretical study and case study analysis. The theoretical study encompassed literature review and technical analysis, primarily focusing on journal articles and conferences that discuss this subject matter.

Results and discussion: Based on this research, transforming industrial spaces into residential areas is feasible when meeting contemporary housing needs, aligning with the transformation context, and integrating complementary functions. Preserving the site's memory is crucial for enhancing its uniqueness, especially for emotionally significant industrial sites. These findings provide a foundation for understanding this concept comprehensively. In my diploma project, I integrate housing into an arts and crafts center by incorporating rental units for young people seeking independent and professional lives on the factory site, aiming to encourage them to stay in the city.

Conclusion: The conclusions of this research are clear. In many cases where industrial spaces are converted into residential areas, the resulting apartments are often exclusive and expensive. Regrettably, these apartments also tend to lose the historical memory of the site; the conversion focuses more on its market value rather than its cultural significance. In summary, this research aims to highlight the importance of revitalizing abandoned sites that resist being forgotten and can serve the community. Just as these spaces were once used for industrial production, their transformation into residential use can now contribute to fostering a cohesive community with shared moral values.

Cultural Foyer. Functional and Design Elements of the Contemporary Cultural Foyer

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Keywords: *foyer, cultural, design, functionality, public*

The objective of this dissertation is to analyze the importance and complexity of foyers in cultural buildings, investigating contemporary design trends. Cultural buildings, such as theaters, opera houses, and cultural centers, which include a diverse range of functions, are generally considered introverted buildings in the urban context. The main activities taking place in these buildings occur within the core of the building, on stage or in the auditorium, away from the exterior boundaries. This core is usually not a visually attractive element. The cultural building interacts with the exterior mainly through the foyer, which, viewed from the outside, defines the main entrance facade.

Foyers serve as transition zones from the public exterior area to the interior performance experience. The spatial character of the foyer and the type of activities taking place there determine the degree of visibility and the public character of the cultural building. Thus, foyers are essential for activating the building, making it more accessible and inviting exploration of the multiple possibilities it offers. The added value of an architectural building is reflected in its public space and how it integrates this space into its physical structure. The public character of a building influences the physical and social urban context, attracts people, and transforms it into an urban destination.

In this paper, I have analyzed the main elements of functionality and design of cultural foyers, supported by studying examples of foyers in contemporary cultural buildings in Europe. The functional elements include functional organization, visitor facilities, accessibility and circulation and technology integration, aiming to show ways of designing the space and what aspects should be considered. The design elements analyzed, such as scale as an aesthetic and functional element, materials and finishes, natural and artificial lighting, and aesthetic impact, highlight new trends in interior design within the public spaces of cultural foyers. In the context of architecture and interior design, the chosen issue focuses on how the functional and aesthetic elements of the foyer contribute to the visitors' experience and the operational success of the cultural institution. A well-designed foyer not only facilitates circulation and accessibility but also provides a welcoming and aesthetically pleasing atmosphere, positively influencing the public's perception of the institution. I will focus on aspects related to the role of the foyer in a cultural building and how its design and functional elements contribute to the overall success of the cultural institution.

Disappearance, Reappearance and Memory in Post-War Architecture.

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Keywords: *Disappearance, Adaptive reuse, Reconstruction, Memory, Authenticity*

Introduction: This paper studies architecture through three main aspects: its disappearance, its reappearance and the memory it leaves behind. In the post-war period, architecture can be defined by a sudden and continuous unprecedented change in the urban fabric, erasing or adding new layers of memory, until it no longer recognises itself. I chose to study this theme because in 2022 I explored memory in a workshop with the community of Blaj, Romania, with the help of archives and archaeology we rediscovered the lost church of the community.

Sources and methods: The first method was based on bibliographical research using books and articles published both in written and electronic format, and interviews. Site visits were my second method. The third method were documentaries, short videos from the online platforms and interviews and archives made freely available online by different museums.

Results and discussion: The paper explores some difficult questions about the reconstruction of urban fabric affected by conflict (military or religious). The present need to look for relevant reconstruction models in contemporary society due to the introspection of different peoples in relation to the reconstructions made after the Second World War by different regimes (democratic or totalitarian). To address such issues it is important to understand the circumstances in which such reconstructions were made. Contemporary demolitions and reconstructions need to be strongly justified, memory being one of the main factors in the decision-making process. These three aspects were relevant to the diploma project because it brings to life, in a reinterpreted form, a medieval monastery that had attached to it a hospital dedicated to the health of children and young people. In the reinterpretation, it is more about mental health and providing shelter for adolescents and young people at risk, as well as creating a safe space for the community.

Conclusion: The causes of disappearance are closely linked to the way in which the memory relating to a particular architectural object is or is not charged with community affect. In the complex process of reappearance, we are talking about an extension of the past by referring to a dialogue to integrate or not the new addition. Memory is the key point linking the two aspects presented above, changing its dynamics from being something curated by governments to something more democratic. Affect is the connector between memory and architectural space, manifesting itself through actions and reactions: appearance, disappearance and reappearance.

The Bilbao Effect

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Keywords: *Bilbao Effect, Guggenheim, urban strategy, iconic architecture, gentrification.*

The study aims to analyze how the development of a city can be positively or negatively influenced by the emergence of a cultural institution at a key point in time – in this case a museum- taking into account different relevant aspects: the economic situation, the socio-cultural effects that occurred after the opening, the role of iconic architecture, but also sustainability and environmental issues. In order to show exactly the relationship between the museum and the urban space I have chosen as an object of study the Guggenheim Museum Bilbao -which has managed to change the fate of the city of Bilbao-, but also the way it has contributed to the notoriety the city enjoys today and the way such an iconic building has been framed in the redevelopment plans of the urban strategy.

The methodology underlying the whole study has four essential components: the definition of the topic, the structure of the paper, the research methods and the link with the diploma project. In order to collect all the necessary data for the study, several methods were used, including literature review, analysis of documents on similar topics, case studies, but also personal experience. The paper unfolds gradually, starting with details on how the decision was made to build the Guggenheim Museum in Bilbao, the economic context of the city, but also analyzing some of the relevant theories behind the creation of such a building. In order to better understand the vision behind this museum, the concept and design proposed by Frank Gehry were analyzed, as well as how iconic architecture can play a decisive role in the transformation of various cities.

Furthermore, in order to better understand the notion of the Bilbao Effect and what implications it can have in certain contexts we have chosen to analyze the effects that have occurred on Bilbao, referring to different periods of time and comparing with other museums in the cities that have set out to create the same effect through other iconic buildings. Despite the fact that in the short term were observed more positive than negative effects (economic growth, reduction of unemployment), and in the medium term social-cultural devolution can be mentioned, it can be noticed that with the passage of time negative effects such as gentrification, architectural homogenization and sustainability occurred. Making an analogy between the diploma project and the paper, it can be observed a common goal between the Guggenheim Bilbao and my proposal with the expansion of the Bistrita Nasaud Museum Complex: economic and cultural revitalization for the city.

Ultimately, having a detailed analysis of all the aspects, theories and implications that arose from the opening of the Museum in Bilbao, it can be seen how this Guggenheim-Gehry partnership has become a successful duo for Bilbao, creating an impact in the urban cultural sphere, known today as The Bilbao Effect.

The Educational Promenade.

Educational Spaces for the Tvet System

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Keywords: *learning, commons, workshop, highschool, collaborate*

Introduction: The romanian secondary school's educational system in the field of constructions lacks the institutions and the latest technologies needed to maintain a high standard of training. This is the reason why most of the romanian construction workers are not qualified in this particular field, nor did they follow any kind of special training. As such, training occurs on the site for the newcomer, working alongside the more experienced people. The careless approach on the part of the construction workers, regarding the professional training, is one of the roots for the endless series of conflicts between them and other engineers or architects. Regarding this situation, I wished to fathom this crisis of knowledge and disregard towards the field of constructions.

Sources and methods: My research methods consist in beginning with a worldwide scale picture regarding the TVET (Technical and Vocational Education and Training) and gradually zooming in on the specific case of the romanian secondary school educational system in the field of constructions, whereupon I will be presenting a suite of specific and diverse case studies of contemporary educational institutes from Romania and other countries, from which I seek to better understand the way the architecture of the spaces accommodate the new pedagogical paradigms, by which the ideals of the learning commons concept should be obtained. According to the intentions already laied out, by which I was guided along in researching and writing this paper, my findings have been very usefull regarding the proposal for my degree project and I will be exhibiting them in the closing of my thesis.

Results and discussion: Workshops and testing rooms are a must have. Involving the community in the design of the concept is always a great idea. There is a real need for designing a flexible room in which the tutor and the student can meet in an informal manner. This room should not be a traditional classroom, nor the hallway. Silence and solitude will continue to be the best „room” for processing and memorizing. Formality is the shortest way to character improvement. Still, there could be some space for informalities in the learning commons.

Conclusion: Pupils are fond of an environment that eases their research on a paper that they are assigned by their tutor and they need acces to a database made and filtred by professionals. The twenty-first-century learner should be assisted in the process of developing his critical thinking, by which he will be able to compare and form connections between different sources of information, as he prepares to enter the working field, in which he will collaborate in multidisciplinary teams.

The Museumification of Industrial Heritage in the former European Eastern Bloc

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Keywords: *industrial heritage, museumification, urban regeneration, culture*

Introduction: The study highlights the transformative power of converting abandoned industrial sites into museums, emphasizing the connection between these spaces and the communities that formed around them. It seeks to understand the multifaceted implications of this process, to evaluate the impact cultural tourism has on the host communities, and to identify and analyze such interventions within the former European Socialist Bloc. The emphasis of this text is on the question of whether or not recourse to culture is beneficial to regions that are affected by deindustrialization.

Sources and methods: The initial step of the methodology involved defining the objectives, structure and research methods. To gather the necessary data, various methods were employed, like literature review, case studies and document analysis, observational research and personal experience. The paper is organized chronologically, beginning with an overview of the research theme accompanied by a brief historical background. A discussion of conventional methods for transforming industrial areas is followed by an analysis of the museumification phenomenon as a reaction to deindustrialization. The narrative concludes by drawing connections between the research topic and the author's diploma project.

Results and discussion: In addition to preserving and promoting industrial heritage, culture plays a crucial role in societal regeneration and urban space transformation, fostering community cohesion and boosting local economies. Furthermore, successful case studies underscore the benefits of museumification, such as the conservation of industrial heritage, public education on its importance, and sustainable development strategies that reduce demolition needs and support regional revival through industrial tourism initiatives backed by European Union programs. The study preceded the diploma project, considering its final goal to convert the decommissioned brewery in Turda, Romania, into a museum of industries. The project also aims to act as an urban and cultural activator, accounting the needs of residents and materializing them into an extension of the museum.

Conclusion: Ultimately, this research advocates for a shift in perspective towards viewing old industrial architecture as a valuable resource for fostering balanced and intelligent urban development, reinforcing the need for ethical intervention and active community involvement in preserving and enhancing industrial heritage.

The Stadium And the City.

Exploring the Stadium as an Urban Catalyst and Symbol of Civic Pride and Community Space

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Keywords: *Stadium, City, Symbol, Catalyst, Urban*

Introduction: This dissertation aims to explore the possibility of bringing the stadium back into the urban core, becoming an active and integrated part of the city. The design or even renovation of a stadium, whether football-specific or not, should transform it into a space used by the community even on non-game days, stimulating the entire population of a city, not just the supporters of a football team.

Sources and methods: The structure of this dissertation is divided into two components, specifically a theoretical one followed by a practical one, to better understand why such a construction should be in the city and why it is a source of pride and joy.

This dissertation is based on a series of books, articles, and research, bringing together complex information that has been critically analyzed along with my own experiences at stadiums in Romania and throughout Europe.

Results and discussion: Reconsidering the stadium and its relationship with the city to serve as a fundamental space for the community. Instead of leaving the stadium empty on most days, we must think about how it can be used daily and truly become a space for the community.

The main question of this dissertation is how such a construction can attract people every day to practice sports, relax or have fun, creating a public space that appeals regardless of the day or the weather.

Often, the stadium can be an emblem and a symbol of the city and its community. It largely occupies a central place in the contemporary urban landscape. This dissertation aims to explore the complexity and significance of such a construction within the modern city, investigating the impact it can have socially, culturally, and economically.

Conclusion: The study concludes that the stadium's place is in the city; it should be a symbol and a source of pride for its residents, an attractive space, an active and dynamic part of the city that responds to the needs of its community.

The Foyer.

Portal between Urban and Film

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Keywords: *foyer, cinema, transition, ambiance, experience*

Introduction: Cinema is one of the newest architectural programs that has been criticized and explored by architects and theorists. Attention has been focused on the design of the cinema auditorium, but considering the social character of the program, the foyer plays a particularly important role, yet it remains insufficiently studied. Leading researchers have criticized cinemas for the abrupt transition to urban space once the film ends. The objective is to identify the key factors in the design of foyers and to find a strategy to facilitate a natural transition from one environment to another.

Sources and methods: Considering the specificity of the subject, thorough research was necessary on all levels. First, understanding the origin of foyers and their historical evolution was essential. The next step involved identifying the role and importance of the space from articles focusing on its social perspective.

Further, an architectural analysis was implemented using design guides to divide the entire space into independent functions and to understand their purposes. Additionally, a study was conducted to ascertain whether environmental elements such as acoustics and materiality can impact the spectator's experience.

The subsequent method consisted of a sequential analysis of the foyer, defined here as a staged path starting from urban space. Moreover, the views of theorists regarding the relationship between the cinema and the street contributed to a better understanding of its impact on the cinematic journey.

The final method involved practical analysis, examining three case studies in different cultural contexts. Each of these case studies was analyzed using the same set of criteria, including an sequential, spatial-functional and environmental analysis of the foyer.

Results and discussion: Following the analyses and studies, it was found that the foyer represents more than a simple reception and waiting space; its social component is indispensable. Furthermore, it was confirmed that design elements impact the gradual transition between urban space and the movie theatre. Additionally, any disruption can break the progressive continuity of the cinematic experience.

The diploma project closely relates to this topic, focusing on an existing cinema hidden among neighboring buildings, with difficult access to the foyer. Finding an adequate solution was crucial for designing the ideal space.

Conclusion: The results indicate that the foyer must be carefully designed to create a valuable experience in moviegoing. The difference between cinema and watching from one's own home lies in the social component. This involves the transformation of the crowd into spectators even before the film starts, therefore, the space that makes such transition possible is the foyer.

100+ Architecture For Health. Historical and Current Challenges in the Design of Rehabilitation Centers

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Keywords: *Health, rehabilitation, longevity, architecture, Romania*

Introduction: In a world whose average age is constantly increasing, concern for quality of life is essential even for those in technical fields. The closeness between architecture and health is perceived especially when aging highlights environmental barriers. Precisely for this reason, the contemporary architect must look for solutions to facilitate the overcoming of obstacles where possible, and replace them by modelling the space to contribute to a higher quality of life.

Sources and methods: This research paper highlights a synthesis of the most important theoretical and architectural concepts. Starting from a historical retrospective, a critical evaluation of the results of the projects in the conceptual or realized phase, we arrived at the formulation of minimum standards that a successful project - from a contemporary perspective - must include.

Results and discussion: Contemporary theoretical approaches to the central themes in recovery such as movement, nutrition and a healthy lifestyle, biophilic design and the implementation of smart technologies, highlighted a necessary „minimum” for a successful architectural project. Innovative for the Romanian space is the concept of a rehabilitation center which, in the architectural language, differs from the typology of existing hospitals and medical clinics. The adaptation to the conditions imposed by the Romanian health system develops both the dimensioning and the contextualization of the projects at a conceptual level to be feasible and sustainable.

Conclusion: “Architecture 100+” is primarily a concept of the present, whose viability is given by the flexibility of permanent adaptation to the new possibilities of medicine. The architecture provides the framework for recovery activities and thereby becomes part of the process. Thus, the implementation of biophilic design, natural lighting, natural ventilation, movement, smart technology, harmony of textures and colors, etc., can positively influence the environment. The “garden” element translated through the inner courtyards and the exterior arrangement brings to the attention of the attentive observer the idea of a complete rehabilitation, a reconnection to the origins. We could find various parallels with Ebenezer Howard’s concept of the “garden city”, with the beautiful projections of the hanging gardens of Semiramis in ancient Babylon, or with the ideal of a divine creative process taking place within the garden called Eden.

Extension of Cultural and Museum Spaces.

Application to the “Palatul Culturii” in Târgu Mureș

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Keywords: *Health, rehabilitation, longevity, architecture, Romania*

Cultural spaces are increasingly crucial in the modern world as they serve as venues for creativity, learning, and social and cultural cohesion. As communities evolve and cultural demands become more varied, expanding existing cultural and museum buildings becomes essential to meet these needs. The design of expanding a cultural center involves a complex process that integrates architecture, urbanism, sociology, and sustainability. Târgu Mureș faces an even greater challenge due to its highly diverse social composition and balanced representation of multiple ethnicities.

The aim of this study is to investigate, through case studies, approaches to addressing the issue of expanding museum spaces. For this reason, we will examine a series of exemplary architectural projects designed by renowned architects in this field. By analyzing these well-known contemporary projects, we aim to develop a comprehensive architectural vision on how such projects can be successfully implemented not only in foreign countries but also in Romania. Reviewing specialized literature, examples of best practices, and contemporary design techniques will shape an architectural perspective that guides us in tackling this complex challenge.

The primary objective is to identify and explore a cultural problem related to the lack of cultural spaces in Romania and propose solutions. This work is based on gathering data from studies conducted on European and Romanian societies. These data will assist in understanding social compositions and determining potential users. Case studies provide the foundation for evaluating many similar situations within our theme. All research and studies aim to formulate a response based on case studies from foreign countries that could be applied with similar positive outcomes in Romania. The ultimate goal of this thesis is to communicate the results and final conclusions on the research theme of expanding cultural and museum spaces.

The School and the Neighborhood. The Democratization of Educational Spaces through the Relationship between the Community and the Educational Architecture

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Keywords: *Education, School, Future*

Introduction: The main topic of the dissertation is the contemporary school system and the buildings that house this function. The aims of the study is to find, through different studies and demonstrations, if the schools we have today are good enough, at least better than the ones in the past or they are even underperforming and need improvement.

Sources and methods: All the work for the dissertation began by structuring and deciding the context of it, I had to read specific books, articles and go to the library for other examples before having a concrete idea on how to do everything. The main sources used have been books (for information, studies and the structure of the dissertation) and websites (for relevant images and information).

Results and discussion: The original results are the main past school classifications, how did they evolve through time from antiquity to the contemporary era and what impact did the past systems have upon the schools we know today? Also, as I said before, we gradually come to a conclusion about the quality of today's educational functions, with each chapter. In addition, we end up proposing ways of making the schools better for the future generations.

About the relationship between the dissertation and the diploma project: both were made in accordance with each other. All the recommendations I offered through the dissertation were included in my diploma project and I added multiple images with them in through the text. Not only that, but those were tested in this project to observe the level of quality that these proposals can achieve, an information that I'm looking forward to show you.

Conclusion: The main conclusion is something that most people probably expected (because we all lived through it one way or another), namely that today's schools, although they have shown clear improvements, still have many gaps, seen both from the outside (the lack of creativity offered to the design of schoolyards, the lack of trying to attract the local community to the school) and from the inside (the excessive order of the classrooms, the narrow hallways that are not furnished/designed for the mentality of children, the large number of young people given to a single teacher, which leads to overload and a more difficult transmission of information).

However, there is also a good side: the fact that there is a strong desire in society to change things. Also the problems are more and more obvious, the answers to them being more clear with each passing day.

Transforming Cities through Agri-Food Markets. A Sustainable Urban Regeneration Approach

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Keywords: *sustainability, urbanization, community, agri-food markets, economy*

In the context of rapid urbanization and urban population growth, cities face multiple challenges, including infrastructure degradation or overload, social inequalities, pollution and loss of green spaces. In this framework, sustainable urban regeneration becomes essential to create functional and balanced cities.

Agri-food markets, strategically integrated in the urban regeneration process, provide an efficient and multifunctional solution to address these challenges. Since the impact it has on people is plurivalent, we can distinguish several arguments on various levels that society has such as: economic, social interactions, population health and sustainability.

In order to explore and analyze the role of agri-food markets in urban regeneration solutions, this paper will use a mixed methodology, combining qualitative and quantitative methods. The methodology will include the following: Literature review, books and articles on urban regeneration, case studies and research reports on agri-food market projects.

Following the identification of the individual factors that contribute to the operation and success of the agri-food market program, there will be analyzed three case studies from Europe. We will confirm through these examples if the assumptions we started from are validated and following the individual description of the projects we will proceed to a meta-analysis, comparing the examples to each other to observe analogies, things that work and those that do not.

The conclusions of this research is that, first of all, we started from the idea that the agri-food markets would contribute significantly to the stimulation of the local economy, something proven by the specialized studies and reports presented in the theoretical part of the papers. In the analyzed examples it was clearly observed that it worked and generated new jobs and in the case of historical markets, they later became points of attraction not only for the community but also for tourists.

The second expected aspect is the fact that this type of public space strengthens social relations. We have noticed both in the specialized literature and through the clear proof of the photos of the examples of agro-food markets that there is a buyer-seller relationship, which is not limited only to the actual act of trade, but there is a whole narrative thread, starting from the way in which the sellers capture the attention of the buyers, how they try to promote their goods, to the discussions during the weighing of the products and the greeting of "Goodbye!".

Furthermore, making a transition to the part of architecture and urban planning, we noticed in all the analyzed examples that this function is strongly associated to a pedestrian flow of people or those who use public transport. Also, another recurring aspect is how market proximity is handled. In general this space is a generous one, which also features seats in addition to other commercial functions.

Finally, the unifying element that made all these individual attributes work is the quality of architecture. People don't just want to benefit from a facility, they want the facility to be of qualitative.

The School Building as Didactic Material.

The Workshops of the Technical and Vocational Education and Training.

The Transition between the Educational and the Industrial Space

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Keywords: *sustainability, workshop, core, flexibility, technologies*

The motivation of the research began with the passion and experiences accumulated in the field of restoration of historic vehicles, a field discovered and initiated by my family's shared interest for this subject. Therefore, we discovered a decrease in the number of mechanics and craftsmen which is caused not only by their withdrawal from the field, but also by the quality of education and training that they have available today. Taking into account the interest in the field, I realized that the problem may start from the place of learning, where the need for practical training in appropriate spaces is fundamental.

Going through the historical study of the architectural program dedicated to professional and technical education, respectively through the analysis of the local case study, from the city of Piatra-Neamț, I observed that the architecture of the workshops was overtaken by the technological progress of the century, and no longer adapts to the current needs in the industry. Also, analyzing the situation at a wider perspective, through the five international case studies presented, it is clearly that they emphasize the flexibility of the building and its ability to adapt over time to new requirements or advances, both technological and educational. By optimizing teaching spaces, the architectural project should create a balance between spaces dedicated to individual work and bigger spaces designed for teamwork, promoting a productive and pleasant environment for both students and teachers.

The workshop building manages to bring together people with different interests, either passionate about what goes on inside the building or interested in the building itself. In this way, the building becomes a witness to different creations, to learning processes, without losing its architectural values that make it remarkable. How does architecture remain impressive in a context where it has to become impartial? Well, the answer lies precisely in the delicacy in which it is present, without tangling with the process of innovation and the capability in which it responds to a new program through an architecture of the future, of technology and simplicity. The spaces intended for these educational and workshop functions are hybrid, contemporary spaces adapted to the new needs of society. Consequently, sustainability, in response to contemporary needs, must be one of the implicit components of these buildings.

The challenge lies in the question: Where does education begin and where does it end in an industrial field? The answer can be a wide spectrum of variants and concepts, therefore the approach to such a building must be made in close connection with the context, both physical and socio-cultural.

The Space Filled by Addiction. An Analysis of Architectural Programs Dedicated to Treating Addictions

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Keywords: *sustainability, workshop, core, flexibility, technologies*

Introduction

The main topic of the dissertation is centered around worldly encounters with addiction and how it is viewed socially, ultimately connecting these aforementioned researched notions with the evolution of the treatment options for people suffering the consequences of psychoactive substance abuse. A crucial chapter of this paper revolves around the architectural spaces that have the ability to heal, consequently on the ones that are designed and tailored specifically for battling addiction with a through case study on residential recovery centers from the world and Romania with the purpose of highlighting the differences and similarities between them and discovering how certain rehabilitating architectural elements are implemented in the design of these projects.

I chose to undertake this study merely to feed my curiosity about the human mind and learn how architecture and trauma-informed design can bring an ease in the complex journey of healing.

Sources and methods

The focal method of researching was gathering information by “word of mouth”, as I’ve spoken and asked for advice from psychiatrists, psychologists specialized in CBT(Cognitive Behavioral Therapy) and addiction treatment, people affected by addiction, representatives of ANA(National Antidrug Agency), architects that at some point designed projects adjacent to this field, and I’m grateful for every piece of information and excitement I managed to collect. The other sources of information entail articles, medicine papers, books related to the topic, videos and podcasts which helped me assemble the paper in a rigorous and comprehensive manner.

Results and discussion

The main discussion points rely on the answers of the following questions that this dissertation paper aims to elaborate: What is addiction? What are the methods of treatment and how can they be applied correctly? Can architecture influence the mental wellbeing of humans? How can I answer, through my diploma project, to the psychological needs that an individual develops when fighting addiction?

The answer to this last question is the main focus of the diploma project. After thoroughly researching the aforementioned concepts, the project will be a result of everything that I have studied, filtered through the opportunities and possibilities of design in this country and area alongside personal playful approaches.

Conclusion

The conclusion of my research is that there’s a long way to go, internationally and nationally speaking, in the journey of treating addiction, but the societal views are positively changing and the field of architecture is moving fast towards recognizing the importance of design principles in healing. This research and paper matters because, on one hand, it refined my view on the mentioned topics, and on the other hand, it has the beneficial and constructive power to influence other people’s outlooks on this matter, as it is, unfortunately, more and more present in today’s society.

Education in Non-Formal Settings.

The Scout Method and Youth Centers as Agents of Community Change

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Keywords: *youth, education, scouting, development*

Introduction:

Preparing young people for the future typically involves creating an educational framework that equips them with essential growth tools. However, architects play a crucial role in physically shaping this future. My development has been significantly influenced by both architecture and non-formal education, particularly scouting through the Scout Method. This personal motivation has led me to explore several questions: how can I, as a future architect, aid in youth development? What is the link between space and education? How can spaces effectively serve and support young people?

Sources and methods: The research on this subject is based on a theoretical study, utilizing a specialized bibliography to highlight a multidisciplinary discourse between architecture and educational sciences. Additionally, the methodology involved conducting interviews and discussions with various individuals engaged in youth activities in the commune of Cristian, including scout leaders and youth activity facilitators.

Results and discussion: The research shows that well-designed learning spaces evolve into complex environments that boost student performance by stimulating creativity and cooperation. Youth centers, serving as educational and recreational hubs, provide vital resources supporting personal and social growth, as evidenced by interviews with youth activity leaders in Cristian.

Conclusion: Through my project, I aim to provide architectural solutions that meet the concrete needs of the community's youth. I firmly believe that to ensure the comprehensive development of young people, a holistic approach is essential. This approach involves contributions from architects, education specialists, youth, and community development facilitators. Only by working together can we create a better world.

Schoolyard. Requirements in the Way of Spatial Configuration

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Keywords: *school, schoolyard, pedagogy.*

Introduction: When it comes to remembering about our school days and the significant events that took place during this time, we will find that at least half of these events took place in the schoolyard.

Either if we are talking about the urban or the rural environment, at first glance most of the schoolyards in Romania are treated superficially, the predominant components within them being concrete platforms and grassy areas, the percentage of which differs from case to case. Thus, this thesis focuses on exploring the universe known as the schoolyard, aiming to uncover an ideal formula that can be implemented in schools across Romania. The goal is to transform these spaces into friendlier and more efficient environments for providing a higher quality education.

Sources and methods: The study was conducted by reviewing specialized literature in both the architectural and pedagogical fields. The detailed examination of the school's architectural program aimed to understand its evolution from its inception to the present day. On the other hand, reflecting on pedagogy and new practices complements the architectural studies and could shape the direction schools will take in the future.

Results and discussion: Therefore, the review of specialized literature revealed seven important principles that should be incorporated into schoolyard design projects.

In addition to these principles, another aspect analyzed in the study was the relationship between the schoolyard and the building structure, depending on the typology of the latter.

Conclusion: After identifying these factors, the next step was verification through case studies. These included both national and international examples, represented by educational institutions dedicated to different age groups. By selecting the two international examples, we were able to identify the complexity that such a project can reach, while by choosing a national example, we could identify the potential that schools in Romania could achieve.

Housing Issues in the Capitalist Era and Solutions inspired by Co-op Housing.

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Keywords: *Cooperative housing, urban housing issues, social integration, sustainable-living, community-oriented design.*

Introduction: The study focuses on contemporary housing issues driven by the current capitalist society, affecting the social landscape. It analyzes cooperative housing models from both historical and contemporary perspectives to offer sustainable, equitable, and inclusive solutions for urban housing problems. The goal is to identify current and future housing issues both locally, in Cluj-Napoca, and globally, and to adapt favorable aspects of cooperative housing to the context of a co-op housing in Cluj-Napoca.

Sources and methods: The research involves a theoretical analysis of housing problems and potential threats, considering global and local contexts. It includes case studies of various cooperative housing projects, such as Cité Napoléon in Paris, Lo Fab in Bordeaux, and Équilibre in Switzerland, to understand their contributions to social integration and community development. The study also reviews relevant literature on cooperative housing and its impact on social dynamics.

Results and discussion: The research identifies key issues in contemporary urban housing, such as social segregation, environmental challenges, and the loss of community cohesion. By examining cooperative housing models, the study highlights their benefits, including enhanced social interaction, shared resources, and community support.

Main Points of Discussion

Historical Perspective: Cooperative housing began as a response to social isolation in urban areas. Sættedammen, established in 1972, combined private living spaces with communal areas to promote social interaction and mutual support.

Case Studies:

Cité Napoléon: An early example of worker housing in Paris that aimed to improve living conditions through shared amenities.

Lo Fab: A contemporary cooperative housing project in Bordeaux that emphasizes sustainability and community living.

Équilibre: A Swiss cooperative that integrates social housing with environmental consciousness and community engagement.

Challenges and Innovations: The study discusses the challenges cooperative housing faces, such as market forces driving up prices and limiting accessibility for younger families. It also explores innovative design solutions to adapt cooperative housing principles to modern urban environments.

Conclusion: The study concludes that cooperative housing models offer valuable insights for addressing contemporary urban housing issues. By fostering social integration and providing sustainable living solutions, cooperative housing can mitigate the negative impacts of capitalist-driven housing markets. The dissertation suggests that architects should consider cooperative housing as a viable alternative to traditional housing models, emphasizing the importance of community-oriented design and policy support to promote equitable housing solutions.

Third Places.

How do Teenagers in Romania Appropriate the Public Space?

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Keywords: *youth, built environment, mental well-being, community*

Introduction: The study's aim is to provide a starting point in the research about „the third place” in Romania, more precisely as it pertains to teenagers. Because the concept of „the third place” has not been debated much outside of the United States as of now, I want to collect the existing studies that have been conducted about this concept, and relate them to European studies about teenagers’ relationship with the public space, highlighting their specific needs and the strategies recommended to make the public space more welcoming for this age group.

The questions presented for this research are: „What is the third place?”; „What is the Romanian context when it comes to the public space and teenagers?”; „What are the examples of good practice in research and architecture?”;

This study was undertaken because of an anticipated lack of studies made about the effect of the built environment on teenagers’ social and mental development, and because of my personal experience as a teenager in a town that lacked opportunities.

Sources and methods: I studied the existing literature about „the third place” and similar concepts in order to define it. Then, I studied the context of adolescents’ mental health in Romania, and existing policies meant to help them. I made an overlook of the public space in Romania and contemporary discussion around it. I presented the most relevant studies about „the third place”, public space and teenagers, collected mostly from sociology, psychology and urban planning journals, and related them to the Romanian context, using personal experience and an informal interview with 7 participants. Then, I proposed a similar study, adapted to the socio-economic context in Romania.

Results and discussion: The research concluded that teenagers are not given enough attention when it comes to including them in decisions related to the planning of their own environment, and that stakeholders do not take in considerations the needs of teenagers in the public space. The main discussion points are: the needs of teenagers in the public space and the strategies needed to meet these needs. For my diploma project I chose to design a social, educative and cultural center for teenagers in Hunedoara, my home town. This center will provide the lacking spaces that teenagers need outside of school: „third place”-like spaces for socialization and community, spaces for urban sport, a resource center with psychological and career support, and spaces for artistic and hobby clubs.

Conclusion: Comparing available literature from other countries with the ones in Romania, as well as the quality of public spaces and projects dedicated to young people, I concluded that there is a lack of regard for the needs of teenagers. My study serves as a starting point for a research based around the needs of young people in the public space in Romania, which in the future can culminate in policies and design principles, in order to make better public projects.

River Rehabilitation In The Context Of Urban Regeneration.

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Keywords: *Urban renaturation, Sustainable cities*

Introduction: This paper is intended to be a study that argues the specific measures necessary for the revitalisation by renaturation of the city of Târgu Mureş and the rehabilitation of the Mureş River in the urban area. The objective of the research is to highlight the principles of socialist architecture regarding the collective housing and the development of green spaces and to find the possibilities of transformation to meet the society needs.

Subject matter: The Mureş River and its riverbed are classified in the category of green spaces for the protection of forests, watercourses and wetlands. The intra-urban corridor related to this watercourse offers the opportunity to develop a network of green spaces that can include pedestrian paths, alternative circulation routes and the creation of advantageous connections in the urban structure.

Sources and methods: The main research method is the documentation of the urban planning programme specific to the socialist period and the regularisation of the Mureş river, with all the dramatic changes that this phase has brought about.

The practical approach of the work consists of case studies of urban renaturation in our country and is based on the sources indicated in the bibliography of the work, as well as on my own interaction, in the municipality of Târgu Mureş and the intra-urban section of the Mures River. I analysed the evolution of the sites by photographic collage and mapping their image in the urban structure.

Research results: My diploma project is based on the research results of my dissertation and proposes a masterplan that includes the Aleea Carpaţi district, the Mures River and the Turbine Canal. The purpose of the project is to capitalize and regenerate this urban area through renaturation and to facilitate road, bicycle and pedestrian connections in the proposed area and over the Mures River.

Main discussion points: As a result of today's major climate change, cities built with non-organic materials such as asphalt and concrete, and which do not have sufficient natural areas or green spaces, are real „heat islands” where housing itself has become a problem and are not considered sustainable.

Conclusions: Under the current conditions in Romania, remodelling the architecture of the socialist era is not feasible due to the high costs, so urban regeneration towards sustainable development remains the most appropriate approach for urban development.

The steps required for urban regeneration and renaturation are specific to each area, therefore in this study only the guidelines of this complex process have been outlined, the details of which remain open for future research.

3D Scanning as a Tool in Architecture.

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Keywords: *3D Scanning, Laser, Photogrammetry, Point Cloud, Digital Model*

Introduction: The primary focus of this dissertation is the exploration and application of 3D scanning technology in the field of architecture. The study aims to investigate how 3D scanning can be effectively integrated into architectural practice to enhance design accuracy, construction management, and overall project efficiency. The central research question addresses the benefits and challenges of utilizing 3D scanning in architectural workflows and its potential to transform traditional architectural practices. This study was undertaken to bridge the gap between emerging digital technologies and practical architectural applications, emphasizing the need for innovative tools in contemporary architectural design and construction.

Sources and Methods: The research was conducted through a combination of primary and secondary sources. Primary data was collected through direct experimentation with 3D scanning technology, using photogrammetry, applied to the final project of my architecture study. This involved capturing high-resolution images with a drone and creating a point cloud, processing them into 3D models, and integrating these models into Building Information Modeling (BIM) software named Archicad and a visualization program Dimension 5. Secondary data was gathered from review of existing literature, including academic articles, industry reports, and case studies on the use of 3D scanning in architecture. The methodological approach combined qualitative and quantitative analyses to assess the accuracy, efficiency, and practical implications of 3D scanning technology in architectural practice.

Results and discussion: The research yielded several significant findings. Firstly, 3D scanning technology markedly improves the precision of architectural models, enabling more accurate and detailed representations of existing structures and sites. This precision enhances quality control and reduces errors in the construction process. Secondly, the integration of 3D scanning into BIM platforms facilitates better collaboration and communication among architects creating project the other professions involved, leading to more efficient project management and execution. However, the study also identified several challenges, including the high cost of 3D scanning equipment and software, the need for specialized training, and potential ethical issues related to data ownership and privacy. These findings are directly related to the diploma project, as they highlight both the potential and the limitations of incorporating 3D scanning into architectural workflows, providing a practical framework for its application in future projects.

Conclusion: In conclusion, the research demonstrated that 3D scanning and photogrammetry offer substantial benefits to architectural practice, particularly in enhancing design accuracy, project efficiency, and client communication. However, challenges such as cost, technical expertise, and data processing complexities remain significant barriers to widespread adoption. The study advocates for continued technological advancements and interdisciplinary collaboration to maximize the potential of these tools in shaping future architectural innovations.

Bastions in Readjustment Scenarios. Models, Solutions and Current Revitalization Practices for the Bastions of the Alba Carolina Citadel

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Keywords: *Architectural revitalization, Bastions, Architectural reintegration.*

Introduction: The main topic of this dissertation is the evolution of the architectural functions of the bastions of the Alba Carolina fortress in Alba Iulia in the historical context and the revitalizations and reintegrations of the bastions in Europe. The research objectives are to discover the multiple functions of the bastions of the Alba Carolina fortress and to investigate the trend and the current way in which Europe reintegrates and revitalizes the bastions of the fortresses. This study was guided by the following questions:

-What has been the architectural role of the bastion throughout history and what functional influences has it taken on in different historical contexts?

-How and why have bastions declined, the transition process and what is the usefulness of bastions in the 21st century?

-How are bastions in Europe in the 21st century being adapted and restructured architecturally to the new requirements of the urban community?

The study supports the diploma thesis with information, updates and regulates the architectural approach to a medieval bastion.

Sources and methods: For this research, information obtained through visits to the library, consultation of specialized bibliography and on-site visits to the Alba Carolina fortress in Alba Iulia were largely used.

All information was selected from books, journals, PhD theses and websites, used as sources of documentation. The methods used in writing the research are the interpretative-historical method and the qualitative method for identifying and presenting the revitalization techniques of the bastions.

Results and discussion: The historical research of the bastions in Alba Iulia has revealed the alternation of military, personal and public functions, generating a clear picture of its functionality. At the same time, the research of the revitalization of bastions in Europe has revealed the three modes used, revitalization through public functions, through urban practices and revitalization through private housing.

The main ideas of the dissertation are the historical research and the functional alternation in an established historical context of the bastions of Alba Iulia, the current practices of revitalization of bastions in Europe, the documentation of one's own perspective and the development of the project concomitantly. The dissertation and the diploma project were closely related because in the project we refunctionalized the St. Michael's bastion in the fortress of Alba Carolina. Thus the dissertation was not only an example but also a technical guide for this theme.

Conclusion: Through this dissertation I tried to discover the meaning of the multiple functions in the historical context of the bastions of the fortress of Alba Iulia and at the same time how the existing bastions in Europe have been and are being modernised, revitalised and how the bastions are reintegrated into today's modern society. This research has significance for my project, but also in general to better understand the bastions and the functions and actions to which they have been subjected for a better future approach.

Sensory Experiences in Education

How the Built Environment Affects the Experience and Performance of Elementary and Middle School Students

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Keywords: *Educational Spaces, Sensory Experience, Third Teacher, Enriching Environment*

Introduction: The built environment constantly shapes our daily lives, influencing our social interactions and routines, often without us even realizing it. This impact is evident at various scales, from city planning to the design of specific spaces, including those intended for education. Despite the significance of school environments in shaping educational experiences, many existing school buildings have remained unchanged, drawing from buildings initially unrelated to education. This paper aims to analyze pre-university educational spaces through the lens of their psychological impact, emphasizing the sensory experience and its influence on students and teachers. By examining successful design approaches over time, the study seeks to highlight spatial elements that enhance the educational experience and academic performance.

Sources and methods: This study employs qualitative research methods, including a review of relevant literature for historical perspectives, analysis of similar studies, and detailed case studies. Selected buildings are examined using a common set of criteria. Key principles such as flexibility, comfort, spatial hierarchy, and sensory design (visual, auditory, tactile) are explored. Historical insights from the 20th century are contextualized with contemporary user experiences. Case studies include the Marl School in Germany by Hans Scharoun and the Montessori School in Delft, The Netherlands, by Herman Hertzberger. These are analysed for positive aspects identified in theoretical frameworks and their long-term impact on users.

Results and discussion: Over the past two decades, numerous studies have focused on the impact of the built environment of schools on students' behaviour and academic performance. The research highlights the importance of considering both educators' and students' opinions and proves the importance of the built environment on education by comparing standardized test results across different settings. Unlike the historical perspective that emphasized the sheer educational power of spaces, modern studies prioritize student well-being. Key findings suggest that flexible and adaptable learning spaces enhance sensory stimulation and engagement, contributing positively to academic outcomes. Some of the other factors which seem to directly influence students' academic performance are natural light, presence of nature, freedom of movement, diversity of the spaces and personal space. My diploma project, aiming to design a new space for the Reghin Music and Arts School, will apply these principles to address the deficiencies of the current undersized and ill-equipped building, fostering an environment conducive to creativity and sensory development.

Conclusion: Designing spaces that engage all five senses positively impacts user experience, particularly in educational settings where architecture acts as a powerful "third teacher". Research shows direct benefits on students' academic performance, sense of belonging, and overall school experience. Sensory stimulation through integrated natural elements, diverse tactile and visual complexities, and personalized spaces fosters cognitive challenges and emotional connections crucial for holistic education.

September

3rd

Tower on the Horizon! - The tower as a Landmark in the Mediterranean Context (A Signal of Transition between Urban and Maritime)

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Keywords: *Coastal Tower, Landmark, Lighthouse, Transition signal, High tide/ Low tide*

Introduction: The dissertation explores the complex role of coastal towers in the Mediterranean space as transitional landmarks between urban and maritime areas. The aim of the dissertation is to analyze the interplay between practical function, architectural design, cultural significance, and symbolic meaning of these structures.

Source and Method: The dissertation draws upon an analysis of the historical evolution of coastal towers, examining their ancient origins, their medieval adaptations, and their contemporary modernization.

The research method involves an architectural, spatial, and environmental analysis of coastal towers, as well as a comparative analysis of examples from various Mediterranean regions.

It also examines the impact of these structures on urban development, identifying their contribution to urbanistic cohesion and the formation of the cultural identity of coastal communities.

Additionally, this work analyzes concepts proposed by renowned architects regarding the importance of landmarks in urban fluidity. In this context, a parallel is drawn between the literal meaning of an urban landmark and how it has been adapted to the coastal environment of the Mediterranean region.

Results and Discussions: The dissertation demonstrates that coastal towers, regardless of their functional evolution, have retained verticality as a defining element. This verticality contributes to the visual identity and urbanistic cohesion of the Mediterranean landscape, making towers important landmarks for navigation and orientation.

The documentation analyzes the impact of coastal towers on urban development, identifying their contribution to the formation of local identities and the urbanistic cohesion of coastal communities.

Conclusions: Coastal towers are symbols of Mediterranean identity and not only, contributing to the cultural and urbanistic cohesion of the region. These structures, through their verticality, architecture, symbolic presence and position, contribute to the creation of a rich, dynamic, and memorable Mediterranean space.

The Influence of Architecture and Urban Fabric on the Emergence and Evolution of Local Artistic Movements

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Keywords: *urban fabric, artistic movement, influence, painting, artistic movement*

Introduction: The theme of this paper revolves around the emergence and evolution of local artistic movements. The issues addressed concern the role and influence of urban environment and local architecture, both in the genesis evolutionary phases of these artistic movements. A primary objective is to identify the catalytic factors of local artistic movements, while the main objective, is to determine whether local architecture and the urban environment are part of the synergy of factors responsible for the emergence and evolution of local artistic movements, and to explore the ways in which they influence these movements.

Sources and methods: Following the study of specialized literature on the chosen topic, the results were synthesized and analyzed, thereby shaping the working premises. The catalytic factors for the emergence and evolution of local artistic movements were identified, leading to the generation of three hypotheses, with each hypothesis representing a factor as follows: (1) Local specificity, natural and built landscapes influence the themes of artistic works; (2) The specificity and issues of local aesthetics generate compensatory, creative solutions through art; and (3) The urban fabric suggests possible theories and generates patterns in art. In this context, three case studies were selected—three local artistic movements that illustrate the connections formed: the Baia Mare School of Painting, the CitéCréation Cooperative in Lyon, and Abstract Expressionism in New York. The three case studies were analyzed both individually and comparatively.

Results and discussion: The three hypotheses are based on the idea that the built urban environment and local architecture are among the factors responsible for the emergence and evolution of art, influencing the way the artist relates to the object of art (perspective and artistic expression, applied artistic techniques, artistic message). This influence varies from case to case. In the first case study, the focus is on the theme addressed by the artist (in the case of the Baia Mare School, with motifs borrowed from the built urban fabric). In the other two, the focus is on the artistic techniques, with architecture as a support for art (in the case of Lyon, where buildings become the canvas for painting), and the adoption of patterns in art, specifically mimetic art (in the case of New York, where urban and architectural theories and patterns are reflected in the paintings of local artists).

Conclusion: These local artistic movements have a significant impact on the local cultural, social and economic spheres. They may evolve locally, or they may encompass broader areas. In most cases, they become part of the local artistic and cultural identity, thereby giving the place of origin status and representation on the world stage. From this perspective, the fact that local architecture and the built urban fabric can act as a synergistic catalytic factor becomes particularly important.

Sculptural Architecture. The contemporary architectural object, from construction to iconic

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Keywords: *Sculpturality-Opposition-Ambition-The Iconic*

Introduction: The study aims to define the term “iconic” and to analyze what traits it can have.

Sources and methods: The study was conducted using research methods in books, specialized articles and specialized websites.

Results and discussion: From this discussed topic, the elements and traits that highlight an iconic architectural project are emphasized, as well as the mistakes that can occur during or after the realization of such an ambitious project. The principles presented in the study are followed in creating the volumetry of the diploma project.

Conclusion: For a building to be iconic, it must inspire ambition, courage, and confidence, even though the battle against gravity is eternal. Iconicity is born when the architectural object is unique, opposing the current trend of its time.

The written work includes the definition of architectural language. Architectural currents that have given rise to award-winning iconic buildings are presented. In the chosen case studies, the characteristic traits of each building are depicted, including the special elements of each, and the mistakes that today are to be avoided. The diploma project is explained in terms of how it was accomplished and includes certain traits found in the case studies. Finally, as a finishing touch, the role of light and how it can enhance an architectural object is presented.

The Impact of Housing Shortages in Historic Centers: An Analysis of the Housing Crisis in Cluj-Napoca

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Keywords: *Heritage conservation, Housing shortage, Cluj-Napoca, Historic center, Urban renewal*

Introduction:

The dissertation addresses the significant issue of housing scarcity in the historic center of Cluj-Napoca, a growing urban problem with profound social and economic implications. The primary aim of this study is to investigate the underlying causes of the housing shortage in this area, to evaluate the effectiveness of existing housing policies, and to propose strategies that can mitigate the crisis. The research is guided by several key questions: What are the main factors contributing to the housing scarcity in Cluj-Napoca's historic center? How do social housing policies impact the housing crisis? What roles do local authorities, real estate developers, and foreign investments play in the dynamics of the housing market? This study was undertaken to offer insights into how urban development can balance cultural preservation with the need for affordable housing.

Sources and Methods:

The research employs a comprehensive mixed-methods approach, combining qualitative and quantitative analysis. Data collection involved archival research, policy analysis, statistics from stakeholders, local government officials, urban planners, real estate developers, and PhD's work. Statistical analysis was conducted to examine housing market trends and demographic changes in Cluj-Napoca. Comparative case studies from other European cities were also used to contextualize findings and propose relevant solutions. This methodology allowed for an in-depth understanding of both the macroeconomic influences on the housing market and the micro-level effects on residents.

Results and Discussion:

The study uncovered several critical findings. The research identified the rapid increase in property prices, driven by foreign investment and speculative development, as a primary factor in the housing shortage. Additionally, the lack of effective social housing policies has exacerbated the crisis, as has the prioritization of commercial and luxury residential developments over affordable housing. The discussion highlights the need for a more balanced approach to urban development, one that integrates affordable housing within the broader urban fabric while preserving the historic character of the city. These findings directly inform the diploma project, which proposes architectural and urban interventions aimed at addressing these challenges.

Conclusion:

The conclusions of this research emphasize the urgent need for policy reform and strategic urban planning to address the housing crisis in Cluj-Napoca's historic center. The study advocates for the integration of affordable housing within new developments and the implementation of policies that curb speculative investments. These conclusions are critical as they offer a path forward for ensuring that Cluj-Napoca remains a livable city for all residents, while also preserving its historic heritage.

Architecture, Culture and Nature: Conditions and Overlaps. About the Construction in Rural Areas with Applicability for the Village Dumitra

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Keywords: *specific local architecture, cultural landscape, revitalization of rural areas, rural architecture*

Introduction: The paper proposes an outlining of a relationship between the specificity of rural areas and architecture. Thus, the main question seeks the existence or lack of direct laws between current architectural needs and local specifics. The chosen subject is relevant because in Romania a large part of the population still lives in villages, and this space is less studied from an architectural point of view.

Sources and methods: The work develops from general to specific, using secondary sources necessary to outline the problem, but also primary sources to create the picture specific to the chosen locality. The chosen subject being a complex one, interdisciplinarity, quantitative and qualitative methods are used. The quantitatively analyzed primary sources are questionnaires with closed questions, and the qualitatively analyzed sources that come from short interviews. These are joined by the direct observation of the researcher, based on which a deep analysis of the local specifics is carried out.

Results and discussion: Taking into account the data taken from the specialized literature, as well as those discovered following the research regarding the specifics of the chosen locality, it was revealed that rural areas are complex spaces with current architectural needs, but with confusing visual specifics, located between the cultural heritage and foreign adaptations. Also, some of the directions for preserving the local architectural specificity are not always favorable, the most suitable direction in this sense referring to the preservation of the living character of the vernacular architecture and finding some middle-ground constructive solutions, which combine the inherited visual specificity and current needs of living. At the same time, the primary sources revealed an acute need for cultural and economic revitalization of the studied space.

Conclusion: Architecture can play an important role in the revitalization of rural spaces as long as it is being built with responsibility and takes into account the needs of the community, as well as the inherited visual specificity, but also the materials and construction techniques used. For a good architectural intervention, other different housing programs should be built in the villages, bringing with them economic growth and a better appreciation of cultural values.

BiInspired. From Atoms to Architectural Materials and Systems through Techniques and Technologies Inspired by Natural Processes.

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Keywords: *biodesign, architectural materials, parametricism*

Introduction

This project explores the possibility of integrating the complex knowledge of the natural world into architectural innovations. Biodesigned materials and systems imply not only esthetic considerations, like biomorfism, or copying natural solutions, like biomimetics or biomimicry, but learning from, analysing and adapting in a synthetic way the natural processes and systems, in order to achieve nature-centric/friendly design solutions. This is possible due to technological progress in domains like computational design, additive manufacturing, materials engineering and synthetic biology.

Methods and sources

In analyzing a new way of imagining, designing, and manufacturing at various scales, this work aims to seek answers at the intersection of nature and technology. This new approach to bioinspired design is primarily examined through the eyes of dedicated people in connected domains and good practice examples, at different scales, for a better understanding of the process of conception, design, and fabrication, beyond the theoretical aspects. Approaches and projects have been studied throughout the work, ones synthesized and focused on supporting the ideas of the subchapters, and others extensively at the end, reflecting journeys from micro to macro scales.

Main topics

The main topics are - a short history and context of the related approaches and visions, bioinspiration opportunities across scales and the tools we have to implement them in architectural materials and systems.

It is necessary to look at how the way architects have benefited from technological progress has evolved over time, as well as the limitations and key development points. Additionally, in order to discuss the topic of bioinspired design, we must be familiar with the historical premises and identify the point at which this fusion of knowledge from the natural world with certain computational methods and fabrication techniques occurred.

The work explores these topics particularly through the perspectives of promoters and visionaries of parametricism and posthumanism, two important and connected styles that have contributed to the evolution of architecture inspired by the natural world. Moreover, bioinspiration is evaluated across scales, from microstructures to complex materials and sustainable systems. Tools and techniques were also analysed in order to understand the manufacturing part and to have a complex view about the opportunities and challenges that exist in practice.

Conclusions

Bioinspired design makes the promise to evolve from the complex knowledge of nature to innovative biotechnologies sustained by precise manufacturing tools towards an ecological way of building, thinking and living. I think architecture is going to have a new revolution in the design practice, which will consider nature as a partner and also a client. The challenges I can anticipate are concerning the personalized machines and programs that could overcome the complexity of the natural world and the innovative solutions that can born from it.

Post Pandemic Architecture.

The Impact of the Covid-19 Pandemic on the Quality of Living.

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Keywords: *architecture, health, quality, materials, flexible*

Introduction

This dissertation started from establish the relationship between architecture and health, analyzing the role that architecture has played over the centuries in preventing disease. In each century, people have approached pandemics differently and learned a lesson that has subsequently been applied to improve our quality of life. Somehow, over the years, with increasing density, in addition to inflation, in the industrial and post-industrial cities, houses have become tighter. For this reason, it was important to take a step back and analyze those lessons to better understand how we can be prepared for the future.

Sources and methods

The development of this work was carried out by analyzing the information from books, magazines, articles and reports about pandemics and how they have influenced architecture, both, past and present. At the same time we also utilized our own experiences during the Covid-19 pandemic.

Results and discussion

How to improve the quality of life in our homes? This is the question I wanted to find answers to in this dissertation. To answer this question I first had to analyze the factors that affect quality of life. It is only after identifying these factors that the desired solutions and remedies can be found. The main factors to consider when creating a quality space are: indoor air quality, the materials that surround us and the outdoor spaces/balconies.

Following the study in Chapter 3, based on surveys conducted around the world, we have drawn the following conclusions:

1. People who lived in apartments preferred larger balconies. These could be used for a variety of purposes such as urban gardens, a private outdoor living space, but also for activities such as gymnastics.
2. Many people found working from home comfortable and preferred to have a dedicated home office space.
3. Several people experienced a lack of connectivity, while others felt a lack of privacy. A solution to address this problem would be to have movable walls and equipment to increase the flexibility of the spaces and to be able to change according to each person's preferences;

Conclusion

All the research carried out for the purpose of this work has led to the conclusion that the new housing model needs to be flexible, accessible, better ventilated, have effective natural daylighting, private outdoor spaces, work/study spaces, private spaces and a model that focuses on the physical and mental health of its users.

Industrial Heritage.

The Potential for Exploitation of Chemical-Metallurgical Plants

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Keywords: *industrial heritage, post-industrial town, conversion, sustainability*

Introduction

The present study explores into the notion of industrial heritage, specifically examining the possibilities for the exploitation and reconversion of chemical-metallurgical facilities. Industrial heritage, which includes locations of historical and technical importance, is a fundamental component of cultural identity that mirrors the significant industrial progress and socio-economic changes of previous centuries.

Sources and methods

The methodology includes a comprehensive literature review that covers industrial heritage theory, the evolution of chemical-metallurgical industries, and the principles of heritage conservation. Additionally, the thesis employs field research, including site visits, to document the current state of the local chemical-metallurgical plants, assess their structural conditions, and evaluate their potential for reuse.

I analyzed 4 case studies from my hometown, Baia Mare: The Phoenix sulfuric acid and chemical products factory, The copper plant - Central flotation, The flotation - Săsar Mine, The "1 Mai" chemical and metallurgical plant, which I studied in accordance with the conversion methodologies addressed in the works structures, such as: a brief presentation of the current situation through which I was able to understand the location, how these areas interact with the context and possible future connections in this direction such as the close relationship with the natural environment. We have analyzed how the positioning of the sites in different parts of the city can develop various ideas in what is being pursued, their use according to the context, the typologies of the settlement and the potential for capitalization.

Results and discussion

The results of this thesis expose important new perspectives on the possibilities for the industrial heritage exploitation and reconversion of chemical-metallurgical plants. The outcomes underline the difficulty of juggling historical preservation with contemporary development requirements, but they also show the great advantages possible with well-executed reconversion projects.

Conclusion

Ultimately, the thesis argues that through careful planning and creative adaptation, chemical-metallurgical plants can be transformed into dynamic spaces that honor their industrial past while contributing to contemporary societal needs. This reconversion process not only preserves industrial heritage but also fosters new economic and cultural opportunities for future generations.

Water and sensory input in curative architecture.

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Keywords: *sensory impact, healing architecture, design integration, biophilic design, hydrotherapy, therapeutic water*

The present work explores the role of water in healing architecture with a focus on its integration into various built environments to facilitate the healing process and enhance overall well-being. In this context, healing architecture is not limited to medical spaces or healthcare facilities but extends to all forms of architecture that have the potential to promote relaxation, meditation, and emotional well-being through the careful use of water.

The primary aim of this work is to highlight the importance of water in healing architecture and to propose concrete ways in which water can be integrated into the design of spaces to enhance user comfort and health. By examining the therapeutic properties of water and its impact on the senses, the work aims to provide a deeper understanding of how the built environment can contribute to creating spaces that not only improve physical health but also support mental and emotional balance.

Sources and methods:

The research for this study was conducted using a combination of literature review, case study analysis, and theoretical exploration. Sources included books, academic articles, and cultural studies that address both the physical and symbolic aspects of water in architecture. Methods involved analyzing historical and contemporary examples of water integration in design, examining the sensory properties of water (such as sound, texture, and movement), and exploring cultural interpretations of water. This approach provides a comprehensive understanding of how water can be utilized to create spaces that enhance user comfort and well-being.

Results and discussion:

Two key issues emerged from the study on the role of water in healing architecture:

How can water be integrated to maximize therapeutic effects and enhance user experience? The research highlighted that strategic integration of water features like fountains and cascades can significantly improve physical and emotional well-being. The focus is on designing water elements to optimize their sensory impacts and therapeutic benefits.

What is the cultural symbolism of water, and how can it influence healing space design? The study revealed that incorporating water's cultural significance can enrich healing environments. The challenge is to design spaces that not only provide physical benefits but also resonate with cultural values, enhancing overall user experience.

Conclusions: The research highlights the integral role of water in healing architecture, highlighting its ability to enhance both physical and emotional well-being through thoughtful design. Effective water integration can transform spaces into calming, meditative environments that support overall health. This study highlights the importance of considering the sensory and symbolic effects of water in architectural practice, supporting its use as a primary design element to create functional and aesthetically pleasing environments.

Academic beds. Comparative study of Italian and British regulations with the Romanian situation of student housing

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Keywords: *regulations, strategies, housing, academia, education*

Introduction: The main topic of the dissertation focuses on the quality of student housing in Romania, which has been neglected for a long time. While other European countries managed to regulate the living conditions of student housing, Romania still faces issues and backlash in this matter, hence the emigration of romanian youth to other countries which offer a higher quality of education and housing. Why did other countries manage to adopt regulations in this matter? How said regulations have an impact within the country and the higher education system? These are a few questions I would like to answer with this thesis, in hopes that it will provide a better understanding and a starting point for developing some sort of regulations regarding student housing on a national level.

Sources and methods: The sources used in this thesis were the Italian and British policies and regulations of student housing. A thorough analysis of them has been conducted leading to a better understanding of why they had to happen and how they impacted the society. Although books on said subject were investigated, many informations were obtained by studying research papers and case studies that were affected by regulations in both countries.

Results and discussion: Having no specific regulations in Romania while developing a student housing project, led me to investigate why no attention has ever been invested in this topic. The absence of this type of regulations forced me to adopt norms and spatial planning made for different countries, with similar geographical and political situations as our country. The corelation with my diploma project is in the architectural programme itself, a student accommodation complex, which aims to provide a quality place of living for its residents.

Conclusion: After analysing both instances, the Italian and British policies, while also comparing three case studies, the conclusion I have drawn is a national need of specific guidelines for the student housing field. In our current time, the student housing in Romania faces a lot of problems with accesibility, privacy and overall well-being. All these elements should be fixed through a national guideline with a management system in which the housing should fit into and try to overpass national standards in order to provide quality living and facilitate quality educational spaces.

Architecture as Stage.

In Search of Spaces for Contemporary Performing Arts

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Keywords: *architecture as art infrastructure, urban regeneration, contemporary arts*

The study refers to the struggle to develop a new infrastructure for the independent sector of contemporary arts, mainly for the performing arts in Cluj-Napoca. It combines an overview of the development of alternative nonconventional forms of performing arts, differently staged than classical theatre with the study of recent venues for such, around the world. The purpose is to refine an architectural brief for a most desired Center for Contemporary Arts for Cluj-Napoca, a strategic initiative for more than a decade.

The methodology for research combines theoretical and historical documentation from the performative arts perspective in relation with architectural space with local initiatives based on officially adopted strategies and best practices case studies. The result is a programmed and fine-tuned exercise for such an institution in the form of a diploma project (graduation exam) in architecture. A set of spatial objectives for a generic design brief is also resulting.

The contemporary theatre has been evolving for more than a century by denying the classical space for theater and creating different experiences for the public, transforming it in more than spectators, through involvement in a collective cognitive event. Participatory, immersive, multimedia, environmental perspectives and techniques moved dramaturgical art from text to space and from focus to multisensorial options and relations. The social impact of arts is growing towards becoming a key factor for urban regeneration and development, and the local government of the city Cluj-Napoca adopted a strategy for culture but couldn't generate yet the necessary infrastructure.

In the meantime, there is a high interest of the students in architecture to propose projects for cultural activities of all sorts because of evident lack of sufficient venues. Lots of interesting ideas are buried in the archives without reaching the public and private sector which is confronted with the subject.

As conclusions of the research several characteristics for new spaces for performing arts were identified and explained. The spaces need to be flexible and digitalized. The human scale should prevail for optimal immersion into the performances. Attraction and comfort are basic requirements for social attachment to the culture centers. Education and social awareness are important side effects of contemporary arts exposure for the communities. The contemporary performing arts centers should produce synergic effects by combining documentation, research, archiving, production in residences, performance and post-performance events, with the purpose of producing social coherence, adhesion and urban regeneration through culture. Each season an important theme may be treated multidisciplinary by contemporary arts with beneficial social effects.

The independent sector of contemporary arts is endangered by the phenomenon of commodification of arts by the means of festivals. A resistance to festivalization for building a healthy balance with daily continuous cultural immersion of locals is needed, and architecture can firmly contributing for the necessary infrastructure.

The principles of urban regeneration.

Urban Activators in a densely built environment

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Keywords: *urban regeneration, urbanism, sociology, community*

The dissertation focuses on the principles of urban regeneration applicable to the city of Cluj-Napoca, considering its historical and urban context, shaped by several political and economic phases that have defined its current structure. By regenerating a larger site, the study observes the behavior of a socio-cultural program, specifically a Cultural Center aimed at improving the urban experience, enhancing interactions between people, and highlighting the contributions that communities can make in various ways, such as creating a network of public spaces, both outdoor and indoor, away from congested areas and overbuilt environments.

The dissertation is primarily theoretical, proposing a “guide” that supports the understanding and eventual resolution of current challenges faced by contemporary architects and urban planners. The practical component is supported by the analysis of a case study, which is in the proposal stage, further emphasizing the issues discussed.

The analysis method focuses on examining situations in which the city has undergone transformations during various political periods and historical-economic processes, such as communism, industrialization, privatization, and deindustrialization, as well as the transformations after 1990. This approach seeks to understand why today’s sustainable development projects intended for the population are often sacrificed in favor of constructing collective housing blocks that exceed imposed limits. The analyses were based on historical-urban documentation, maps, interviews, archives, and descriptions of unrealized projects due to various reasons.

Additionally, part of the dissertation examines a “guide” documentation related to the principles of urban regeneration, drawing parallels with possible applications in different areas of the city. The guide is international, created by the UN-Habitat Urban Lab, and introduces a critical component of urban development—community involvement in relation to local administration.

The research results clearly identify the need for socio-cultural facilities, which, through their attributes, elevate the cultural level of the city, provide educational, interactive, and recreational spaces for citizens and tourists, and improve the mobility structure within the city.

This dissertation emphasizes the essential connection between urbanism and architecture, two interdependent fields also influenced by other disciplines such as sociology and administration. To achieve coherent architecture, a deep understanding of the historical-urban context is necessary, especially in the case of Cluj. The work suggests that important urban issues are often neglected at both the institutional and educational levels and highlights the absence of a department dedicated to the city’s development, which would bring together specialists from various fields. The main theme of the dissertation explores how socio-cultural functions can repair the overcrowded urban environment, focusing on community needs and current challenges like the pandemic and climate change.

Rehabilitation Architecture: Evaluation of the Ratio of Public - Private Spaces in Oncological Centers

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Keywords: *health, rehabilitation, oncology, architecture, Romania*

Introduction: In the current context of public and private investments in the medical field in Romania, this research paper wants to examine the design process of Oncological Rehabilitation Centres, with an emphasis on the quantitative part of “design”; on dimensions and proportions. The Public-Private differentiation refers to the conceptual approach to spaces that are either specifically intended for the patient with (private character) or an open circuit (public) for the use of a group of patients or external users.

Sources and methods: This research paper focus on a synthesis of some of the most important theoretical architectural concepts in the field of oncological rehabilitation. Starting from a historical retrospective, to find an efficient way of evaluation, we opted primarily for the evaluation of the quantifiable elements that describes the relationship between „private” spaces intended for the patient and the „public” treatment, socialization and staff spaces.

Results and discussion: The central element we understand from the analysis of the case studies is the importance of patient-centred design. Whether we are talking about functionality or accessibility, the role of guidelines and regulations is to inform. Making a project a reality requires a good knowledge of the area and the target user group. The conclusions drawn from the percentage analysis of the surfaces, especially within the inpatient centers, show a tendency towards private spaces. This fact indicates the need to ensure comfort throughout the hospitalization. In the case of centres without accommodation, private spaces are those where private services are offered to the patient.

Conclusion: The present study, in addition to the detailed analysis of proportions, also presents some of the most important approaches in the development of aesthetics. The mental and physical well-being of the patient is defined by aesthetic and functional proportion of the rooms, by the integration of natural light, warm colours, vegetation and art as therapeutic elements. The balance of spaces between public and private, between privacy and socialization defines the orientation of the project. The Oncological Rehabilitation Centres studied reveal conceptual qualities that combine functionality with modern architectural language beneficial to healing. The public-private ratio highlights the degree of complexity of the decisions that the investor must assume, in addition to the economic aspects, that define the spatial climate of the building.

Temporary housing in large scale events: Functional and Social Aspects of Three Specific Cases

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Keywords: *temporary housing, large-scale events, temporary architectural solutions, sustainability, flexibility*

This dissertation explores temporary housing within large-scale events such as the Olympic Games, major music festivals, and refugee camps. The central theme of the work is the analysis of how these temporary architectural solutions are planned, designed, and implemented, as well as their impact on host cities and local communities. The dissertation also aims to highlight the challenges and opportunities associated with these forms of housing, emphasizing their relevance in the contemporary urban context.

The research methods used include case study analysis and a comparative approach, examining various examples of temporary housing in different contexts. The selected case studies include Olympic Villages, major music festivals like Electric Castle, and refugee camps such as the one in Paris. These case studies provide insights into the diversity of temporary architectural solutions and how they adapt to the specific needs of each event and urban context.

The research findings reveal that temporary housing plays a crucial role in urban regeneration, bringing economic benefits and revitalizing the infrastructure of host cities. At the same time, these architectural solutions face numerous challenges, including their impact on local communities, the need to ensure long-term sustainability, and managing high costs. Proposed solutions to address these challenges include the use of local materials, modular structures, and flexible designs that can quickly adapt to changing needs.

The main discussions in the dissertation focus on the importance of flexibility and adaptability in the design of temporary housing, as well as the need to integrate these solutions in a way that contributes to the sustainable development of cities. The work also highlights the role of temporary urban interventions in transforming and revitalizing public spaces, underscoring how they can serve as catalysts for architectural and social innovation.

In conclusion, the dissertation argues that temporary housing, though ephemeral, can have a lasting impact on cities and communities, offering valuable opportunities for urban regeneration and social development. The study of temporary architectural solutions in large-scale events provides new and relevant perspectives that can be applied not only to temporary housing projects but also to other architectural and urban fields.

February

20th

Architecture between Destinations. The Intermodal Hub, a Catalyst for the Revitalization of Industrial Areas

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Keywords: *industrial space, urban connection, urban catalyst*

The aim of this paper is to highlight both the existing obstacles in the reuse of abandoned industrial spaces and the possibility of formulating a sustainable solution for their conversion. The study focuses on the current situation of the Zalău, one of the cities that developed in the past due to industrial growth. The research approaches the issue from a historical perspective to understand both the physical evolution of the urban form and the social factors that have led to the neglect and disappearance of industrial spaces.

„Arhitectura dintre destinații” has both spatial and temporal connotations, referring not only to the purpose of the journey itself but also to the goal of urban evolution. The study questions how this continuity can leave its mark on the industrial area, which is threatened by economic factors and public disinterest. Under the pressure of time, both the user and industrial heritage are seeking to overcome the current state. Abandoned industrial spaces, continuously degrading, form physical barriers that splits the urban fabric. This study aims to explore a new perspective in the form of a sustainable relationship between the traveler and industrial areas.

The following chapters discuss a perspective in which the intermodal node can function as a revitalisation catalyst in industrial areas, the ways in which urban connections can be defined based on the infrastructure linking these spaces, as well as the connection between past, present, and future through the study and preservation of elements that can be included in industrial heritage.

By the principle that the primary user of this solution would be the pedestrian, the research examines their perception of the physical, cultural, and historical context. It considers the principles on which transport users act and make decisions regarding mobility options, with the aim of defining an accessible and engaging context.

The study examines the functions on which modal nodes operate, seeking a potential complementary relationship between their core function and the context of industrial spaces. It therefore explores suitable and feasible functions for the reconversion of industrial spaces that could benefit from the flow of travelers generated by the intermodal node, facilitated by pathways integrated into the urban mobility infrastructure. The paper investigates both successful existing solutions and, more importantly, seeks to identify the negative aspects resulting from interventions in industrial spaces into understanding the causes that have led to the observed effects.

The Impact of National Policies on Spa-Towns with Salt Lakes in Transylvania

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Keywords: *spa-town, salt lakes*

Introduction: The paper investigates the impact of different governmental policies and plans (laws, masterplans, regional and national development plans) on Transylvanian spa-towns issued during three historical periods relevant to the area: under the Austro-Hungarian Empire, under the Communist Regime, and after joining the European Union. The study examines spa-towns from seven perspectives: social, economic, cultural, touristic, medical, environmental, and architectural image.

Sources and methods: The research was conducted by studying historical maps: four Austro-Hungarian Military surveys, three Soviet maps, and one Romanian military map of the 1950s. Articles, books, and journals written in the studied periods were reviewed to better understand the historical context. Understanding the history of balneology was also important.

Results and discussion: National policies in the past had a significant impact on the development and image of Transylvanian spa-towns. Today, they have become overly complex, extensive, bureaucratic, and therefore harder to apply. The evolution of spa-towns and national policies is always linked to the development of balneology as a medical field and the practices associated with it, as when they were at their peak, spa-towns received more interest from authorities, while their decline was mirrored by a decrease in interest.

Conclusion: Spa towns seem to be trapped in a vicious cycle where, despite all the policies and laws proposed and implemented, they escape short-term issues but always return to the same point. History repeats itself. The problems identified in all periods seem cyclic: lack of interest from authorities, lack of conditions, and insufficient funds. Although throughout all periods, the natural resources of the resorts have been seen as a great wealth (of the Empire, of the Homeland, and now ours), it seems that they have not managed to reach their true potential.

The Influence of Architecture on the Educational Environment. Space and Children.

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Keywords: *educational spaces, design for children*

Based on the idea that our environment influences us in one way or another, I wanted to understand how it affects our physical, mental and emotional state. Focusing on the educational environment, the paper analyses the defining elements of space and develops criteria for influencing them in the design of educational spaces.

Research

By collecting relevant information from books, research papers, reports and articles, I concretised a summary of this information in the form of a design guide.

Results

In the architectural design of an educational space, it is important to consider the experiences of children - and not adults - and their physical, mental and emotional needs when planning the space. It is about the space in which they will spend the first years of their lives. In this crucial phase of their development, they begin to discover the world and themselves, and they learn to take responsibility and act socially. Good design can ease the initial transition from family to educational environment, it can promote socialisation and help with the adjustment of young children, it can boost children's self-esteem and even have a positive effect on school performance.

Main points

The first part analyses the environment, particularly the educational space, and how it can influence our lives and experiences at school.

The second part suggests ways to manipulate an indoor space to give it the qualities needed to develop specific educational activities.

The last part deals with the basic need of children to be in contact with nature and how we can design an outdoor space to be attractive to children.

Conclusion

According to studies, the quality of space is an important factor in the quality of children's formal education and beyond. We have the opportunity to create a space that makes a difference. A space that meets the physical, mental and emotional needs of children while working with the teacher to educate and prepare children appropriately for adult life. By making the right choices, a space can become a point of reference in the lives of the people who use it.

The Impact of Contemporary Art Museums on Urban Space

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Keywords: *contemporary art museum, urban regeneration, architectural conversion, cultural education, public space, social interaction, community engagement.*

Introduction: Contemporary art museums today represent more than exhibition spaces; they have become essential actors in urban regeneration, public education, and the interaction between art, architecture, and community. As cities evolve, these institutions serve as cultural hubs that engage diverse audiences, fostering creativity and promoting social inclusion. This paper analyzes the impact of museums on urban space, investigating how they contribute to the revitalization of cities and the enrichment of visitors' cultural experiences. By integrating contemporary art into the urban fabric, these museums enhance aesthetic and cultural value while supporting economic growth and community development.

Sources and Methods: The study explores relevant examples from Europe, such as Tate Modern in London, the Museum of Recent Art (MARe) in Bucharest, and the Serralves Museum of Contemporary Art in Porto. These institutions have been examined through literature reviews, case study analysis, and comparative evaluations to understand their role in urban and cultural transformation. A multidisciplinary approach has been employed, incorporating perspectives from architecture, urban planning, and cultural studies to evaluate how these museums interact with their surroundings. Field observations and secondary data sources, including museum reports, contribute to assessing their broader social and economic impact.

Results and Discussions: A key aspect of the research is how museums actively assume an educational role. Cultural programs, interactive workshops, and immersive exhibitions contribute to developing critical thinking and fostering a deeper connection between the public and contemporary art. These museums provide opportunities for lifelong learning and act as platforms for interdisciplinary collaboration. Additionally, the paper examines the economic and social effects of these institutions, emphasizing their capacity to generate long-term cultural value. Investments in cultural infrastructure within these museums have increased accessibility, audience diversity, and community involvement. The presence of such institutions often stimulates local businesses, attracts tourism, and enhances adjacent neighborhoods. Furthermore, they create employment opportunities not only within the museum sector but also in related industries such as hospitality, retail, and creative services. The study also discusses the role of museums in fostering a sense of belonging and identity within urban communities.

Conclusions: This analysis highlights the importance of contemporary art museums as hybrid spaces where education, architecture, and community intersect to shape an inclusive urban landscape. The findings suggest that museums significantly influence urban development and provide new perspectives on the evolving relationship between culture and urbanism. By embracing digital technologies and interactive engagement strategies, these institutions continue to adapt to modern audiences' needs. Future research could explore the long-term sustainability of such initiatives and their role in urban resilience. Ultimately, contemporary art museums are vital instruments for cultural enrichment, social cohesion, and urban transformation, ensuring their continued relevance in the evolving global cityscape.

a space can become a point of reference in the lives of the people who use it.

Interactive Sports Exhibitions: Ways to Create a Dynamic Sports Atmosphere

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Keywords: *sports exhibitions, museal space, interior architecture*

Introduction:

Sports are one of the strongest forms of human dynamics, maybe the strongest. Due to the fact that sports can only be manifested through movement, interactive sports exhibitons are architecural spaces created exactly for this purpose. These spaces do not only preserve and exhibit merit objects and objects related to sport activities, they also show us exactly how some of these objects were really earned. The real artefacts presented in interactive sports exhibitions are the dynamic moments of the athletes and also the active participation of the public in the museal space. Besides the cultural and historic role, this exhibitions also play an important role in education by allowing us to be an integrated part in the dynamic museal experience. This study aims to answer the following set of questions:

How can we use interior architecture to create a sports ambiance within the museal space?

What are the technologies used by interactive sports exhibitons so they display sports dynamically and interactive?

What are the benefits of exhibiting sports dynamically and interactive? Is this the way through which traditional sports exhibitions can be transformed to be more appealing?

Results and discussion

The study aims to explore the principles and strategies of designing an interactive sports exhibiton, the emphasis being put on ways to create a dynamic atmosphere within the museal space. The movement that takes place within these kind of exhibitions represents a performance with a cultural and educational role in the context of sports domain. Exhibiting in a dynamic and interactive way within sports exhibitions is the most authentic way of displaying the movement and the energy of sports activities in a museum. This kind of exposure can also revitalize traditional sports exhibitons by making them more appealing to the public.

Sources and methods

This paper is built on an interlinked series of informations: first method was researching online for books, articles and interviews related to the subject. Second method was online site visiting, followed by watching a series of documentaries and short videos on official platforms and social media channels of the studied sports museums. The study is based on three interdependent and convergent components: Museal space generator of dynamics , visiting audience generator of dynamics, and interior architecture inspired by sports facilities.

Conclusions

Displaying sports in a dynamic and interactive manner within sports exhibitions is the key through which the public understands exactly what is being preserved and celebrated in this spaces: the movement of the athletes and also the interaction of the public with the exhibition. The more integration of interactive solutions and creative interior architecture decisions with the purpose of creating a sports atmosphere within exhibitons, allowing sports to be displayed twords the authentic way, the more the mesage sent to the public is being shaped.

#ARCHITECTURE

The Influence of INSTAGRAM on Contemporary Architecture

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Keywords: *social media, society, image, influence, responsibility*

Introduction: This thesis will analyze the factors that influence contemporary architecture, focused on the social-media factor, and more specifically on the INSTAGRAM phenomenon, which has come to change the way we perceive the environment. Said thesis is an analysis on how important visual representation is in the field architecture, and also of the accuracy of the information we deliver through it.

Sources and methods: The paper analyzes the subject through three major standpoints: First, the SOCIETY and the beginning of architecture and design presented through mass media, focused on displaying the impact advertising has on the general public's perspective on architecture. After understanding this historical context, the impact of IMAGE on our perception and behavior in society is discussed, highlighting both the dangers and benefits of this digital progress. Finally, the paper explores how social media influences architectural practices, both in the REAL and in the VIRTUAL world, trying to answer questions about the future directions of this interaction. All these ideas are analyzed with the help of case studies and their exposure within the diploma project.

Results and discussion: As a result of this research, we were able to find out how much social media and platforms like Instagram influence our thinking and behavior in society and in our relationship with architecture. This impact has both negative aspects that imply architecture as a superficial field and sells us the illusion of a perfect life through IMAGE, but also positive aspects if we are able to master using it as a tool, as an instrument that helps us progress and improve the quality of life through architecture. Architecture has always had this "sensational effect" as its goal, but it is within our responsibility to deliver quality through adequate sensory, cultural and sustainable examples. Another aspect discussed is the fact that along with information, technology progresses just as quickly. The digital age is only at the beginning, and new technologies will become more permanent whether we want it or not - we just have to be ready to embrace CHANGE. Change doesn't come easy, however, our attitude towards progress is a personal journey. My diploma project is focused mainly on the aspects presented above, creating a synergy between function and form, showing that sustainability can be attained through IMAGE and FEELINGS.

Conclusion: Understanding the impact of Instagram on architecture allows us to see how a digital phenomenon can transform architectural practices beyond physical design. It is essential for contemporary architects to be aware of this phenomenon and find ways to incorporate both the functional needs of buildings and the aesthetic demands imposed by the social media era. We need to embrace new technologies, but the approach and delivery of the information is for us to manage.

Axis Mundi Heritage

The Principle of Action and Reaction

The Community as a Restorer of Heritage

Heritage as a Restorer of Rural Communities

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Keywords: *axis mundi, heritage, community, sacredness, identity*

Introduction: This study aims to demonstrate the existence of a synergistic relationship between heritage and the local community. The identity elements preserved by monuments as witnesses of history serve as a means of connection with the past and ancestors. In the current context, due to the secular nature of modern society, monuments are desacralized, as evidenced by the state of degradation in which many architectural objects are found. With the loss of these elements, which constitute a true identity archive, social cohesion deteriorates.

This study seeks to provide optimal solutions for heritage preservation by restoring its sacred value through construction rituals.

Sources and methods: To prove this hypothesis, the study follows a step-by-step approach. First, the concept of heritage as “identity capital” for communities is defined. The community is examined from the stage of ethnogenesis. The study then investigates how humans perceive space. Furthermore, it explains the mythical values associated with place. Once the concept of myth is introduced, the space-time-ritual trilogy is discussed. After identifying these characteristics, a principled method for applying them in the heritage context is described.

Through bibliographic research, the study develops a model of sacralized heritage through rituals, illustrated by four concrete examples: two based on bibliographic sources and two derived from field experience.

Results and discussion: The original contribution of this work lies in its objective to apply the concept of the sacred in the restoration process by studying and identifying primordial construction rituals that can be translated into contemporary interventions. Once the sacred value is restored, heritage gains the ability to regenerate the community and foster the creation of new ones around it.

The diploma project is located in the village of Corna, Roșia Montană, a settlement severely affected by depopulation to the point of endangerment. The project’s objective was to restore social cohesion nuclei through a memorial-museum, a social meeting function for the community, and the safeguarding of the Greek-Catholic Church on-site.

Conclusion: The interaction between community and heritage can create a virtuous cycle of regeneration. The community becomes the guardian of its cultural heritage, while heritage, in turn, becomes the foundation upon which sustainable regeneration can be built.

This interaction can be facilitated by attributing a sacred dimension to the monument, generated through creative and cyclical rituals. Fortunately, in the Apuseni Mountains, mythical values are still alive across a broad spectrum. If ritual activities are integrated into the restoration process, they can generate not only the cohesion of the local community but also the formation of new communities, united around the monument being restored.

Built heritage can be transformed into a true timeless and identity-bearing Axis Mundi. Heritage is the Axis Mundi. The community restores heritage. Heritage restores the community.

From Classroom to Community Educational Architecture and Commitment to a Sustainable Future

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Keywords: *education and architecture, sustainability, awareness*

This dissertation explores and highlights the link between architecture and arts education, emphasizing the role of learning spaces in promoting sustainability and forming global awareness. Thus, the physical setting in which the act of education takes place becomes an active agent of change influencing the future of the creative industry.

The first part of the paper presents the general framework of arts education with its global implications. Moving along the historical line, the current trends in this field are examined and the impact of physical spaces on creativity is examined and thus it is argued how through the built environment innovative and collaborative thinking can be stimulated. The connection between education and environmental awareness is also explored, emphasizing the role of architecture as a pedagogical tool for a sustainable future.

This brings us to part two, which focuses on the principles of sustainability in the architecture and design of educational institutions. Applying principles such as the use of sustainable materials and technologies or maintaining a harmony between the built and natural environment on learning spaces can impart environmental awareness facilitating sustainable behavior among students.

Next, the paper delves deeper into the topic of fashion design in the educational context, addressing the intersection between fashion and architecture, demonstrating that the two creative fields share common concerns related to innovation, resources and environmental impact. It discusses the impact that the fashion industry is causing globally and how the architecture of the fashion industry's creative spaces can positively influence and thus change the process of environmental degradation.

All the concepts discussed above materialize concretely in the case studies analyzed which are highlighted by innovative solutions combining functionality with sustainability principles thus proving how architecture has an impact on the learning process and the creative industry. This part of the paper also highlights the practical component through the diploma project which aims to create a building that actively contributes to the students' education beyond its basic function. Thus, educational architecture is no longer seen only as a physical space, it is transformed into an active actor in the training of new generations of creators. By integrating topics such as innovation, sustainability or environmental awareness, the built space not only hosts creativity, but inspires and directs it towards a more ethical and responsible future.

Meaning and Seduction

The Affective Experience in/and Architecture

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Keywords: *atmosphere, space, metaphor*

The present work aims to conduct a phenomenological exploration of experiential architecture through the lens of „sense” and „seduction”, seen as tools of sensitive diagrams essential for the subject understanding. This research, undertaken from practical, theoretical, and philosophical perspectives, focuses on the experience of atmosphere within space, which is crucial for human dwelling and becoming.

The first step in this endeavor is the chapter „territories of destabilization”, which places the concept of experience on a historical axis and, by addressing various architectural discourses, demonstrates the long-standing interest in this topic: which includes elements such as sacred geometry and divine order, anthropological symbols, and existential metaphors, like the non-matter problem in architectural experience, rooted in the existence of humans, as Heidegger understood it. The discussion and understanding of this theme take place in the following purely theoretical chapter „metaphor in the act of knowledge” where metaphorical terms and essential ideologies for grasping the concept of phenomenological, sensitive space are explained, consistently drawing parallels with architectural space. The first part of this chapter explores the history of phenomenological understanding through ideas associated with Aristotle, Vitruvius and Heidegger, providing a brief explanation of how the myth and hermeneutics of language evolved to be adopted and used in architecture, fundamental ideas to later comprehensions, while the second part addresses contemporary phenomenological understandings of the theme through two experiential aspects: metaphor and embodiment as forms of living in and through space. The theoretical chapter „the affective image” seeks to avoid digressions from the subject, focusing solely on the experiential sphere. Thus, the subject is treated through the metaphors of the poetic and embodied image, addressing various micro-themes of space and the sensitive imaginary, ultimately demonstrating the hegemony of the body in the experience of atmosphere. The chapter „extensions” presents a series of case studies that complement the final theoretical chapter, thus demonstrating the applicability of the concepts discussed throughout the work, grounding them and establishing concrete relationships within the built space, by treating the body as an experiential metaphor and poetics as a tool of mental alchemy

Ultimately the last chapter, „personal attitudes” describes the author’s own experiences related to the dissertation topic, both descriptively, through personal experience, and analytical, presenting connections with the diploma project.

The investigation of the concept of architectural experience through phenomenological lenses proves relevant not only in understanding atmosphere, beyond a purely abstract concept and more as a fundamental element of architecture, but also in creating spaces for human dwelling. Atmosphere, understood as a space of experience, or „embodied” space, can generate new understandings of space and how the human beings relate to it. By thinking of space in relation to humans and their experience, architecture can become an invitation, an emotion, a place of seduction.

Barn of Culture.

The Role of Wood in the Cultural Heritage of Szeklerland

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Keywords: *wood and architecture, traditional materials, Sekerland, cultural heritage*

The purpose of this study is to capture and interpret the connection and attachment of the Szekler community to wood, both as a traditional and symbolic material and as a contemporary element. It aims to understand the role of wood in the culture of Szeklerland and explore ways to promote local values and traditions related to wood, especially among the region's inhabitants. To achieve this, the research methodology is structured through the analysis of various relationships, incorporating historical data, human and material connections, as well as tangible elements that embody the values of the local culture. Finally, case studies present examples of contemporary creators who have successfully integrated tradition into their work, passing on their knowledge and passion.

The introduction establishes the arguments supporting the study's topic, while the methodology chapter outlines the research approach and the logical progression of ideas throughout the study. Each chapter is named in relation to key concepts such as place, people, community, tradition, and wood—these being the core themes of the study.

The first chapter, Place and People, defines the subject and study area, offering a general description of Szeklerland and its main characteristics. The study then continues with the chapter People and Wood, which explores the deep-rooted connection between people and wood, both as a symbol and as a building material. The next chapter, People and Tradition, provides a theoretical framework on how the community relates to local traditions, defining various attitudes and perspectives ranging from regional traditionalism to eco-regionalism. This is followed by a brief discussion on the preservation of traditions in Szeklerland, beyond the crafts associated with woodworking.

Chapter A walk through the village, begins with an imaginative exercise and then transitions into a more concrete discussion. Drawing on the ideas of timelessness and modernity, three characteristic elements of Szeklerland are selected to illustrate these concepts. A more detailed description follows, including specific examples of three wooden structures: the barn, the sawmill, and the Szekler gate.

After the theoretical section, the study moves on to the chapter Three Solutions, which presents case studies of three associations that have successfully contributed to the preservation, transmission, and renewal of woodworking traditions and the use of local resources. I analyzed their work and artistic creations over time, considering their intentions, beliefs, and perspectives, which together provide valuable examples of how to sustain and pass on local heritage.

The study concludes with a reflection on my diploma project, in which I highlight both the material aspects and the ideas discussed throughout the research. After a brief description, the fundamental ideas and the concept behind my project are presented, based on the knowledge acquired during the study, particularly in relation to the three elements: the barn, the sawmill, and the Szekler gate.

This study does not provide definitive answers to the questions raised, as these are influenced by numerous rational and personal factors. The final conclusion finds its success in the idea of possibilities and hope for future solutions: tradition will continue to exist as long as it is practiced, and as long as it is practiced, it will foster both community and continuity.

The Heritage of the Spa Landscape in the Szeklerland. From Traditional Baths to Spa Centers

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Keywords: *traditional bath, spa centre, spa landscape, integrity, Szeklerland*

Introduction: The main topic of the dissertation is the integration of Transylvanian folk baths and bath centres into the landscape and the examination of the nature of their relationship. At the same time, the aim of the study is to collect information on Transylvanian folk baths and bath centres, their architectural elements, historical development, and location-specific characteristics. The dissertation also includes advice and recommendations on how these two types of baths can be integrated into the Szekler bath landscape. Through case studies, the relationship between the two types of baths and their connection to the Szekler cultural landscape will be examined. **Sources and methods:** For the preparation of the study, it was essential to visit and experience numerous folk baths and bath centres, establish contact with individuals involved in their rehabilitation, and collect architectural, sociological, historical, and medical information from bibliographic sources.

Results and discussion: The study is divided into two main parts. The first part examines the cultural landscape characteristics of Szeklerland, focusing on the bath landscape, a subcategory into which folk baths are integrated. The second main section discusses the bath centres of Szeklerland, presenting architectural solutions and recommendations on how these buildings can also become organic parts of the bath landscape. The central theme of the diploma project is the rehabilitation of an existing folk bath and the design of a new, modern bath centre in Cristuru Secuiesc. This raises the question of whether these two types of baths could coexist and support each other. To answer this question, it was essential to examine the bath types separately and analyse their existing or potential relationship through concrete case studies.

Conclusion: The success of the research is demonstrated by the fact that the emerging questions were answered, and the case studies confirmed that there are already examples in Szeklerland where bath centres and folk baths operate and develop in a mutually supportive manner. Based on this finding, future developments and constructions of bath centres, as well as the rehabilitation of folk baths, should prioritize establishing connections both with the other type of bath and with the broader Szekler bath landscape.

Wood Prefabrication as a Response to Sustainable Residential Architecture Challenges

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Keywords: *prefabrication, timber structures, residential architecture*

In an era where the construction industry accounts for 39% of global carbon emissions, this research examines how wood prefabrication emerges as a transformative solution for sustainable residential architecture. The study bridges historical innovations with contemporary technological advances, demonstrating how engineered wood products and modern construction methods can revolutionize sustainable building practices.

The evolution of prefabricated timber construction reveals a fascinating trajectory from Leonardo da Vinci's early concepts through the practical efficiency of the Balloon Frame system to Wright's "American System-Built Houses" (1911-1917). This historical foundation contextualizes modern innovations in Engineered Wood Products (EWP), particularly focusing on three key materials: Glulam (Glued Laminated Timber), CLT (Cross Laminated Timber), and LVL (Laminated Veneer Lumber). These advanced materials enable unprecedented structural capabilities while maintaining sustainability principles.

Modern Methods of Construction (MMC), particularly off-site manufacturing, represent a paradigm shift in construction methodology. This approach transforms traditional building practices by moving construction into controlled factory environments, resulting in superior quality control, reduced waste, and enhanced worker welfare. The research examines two primary hybrid systems: volumetric (integrating finished modules with structural frames) and panelized (combining engineered wood panels with conventional materials).

Case studies of pioneering projects demonstrate the practical application of these principles. Mjøstårnet (85.4m) and Treet (14 stories) showcase the height potential of timber construction, while Dalston Works exemplifies efficiency in urban contexts, reducing construction traffic by 80% and achieving a weight one-fifth of its concrete equivalent. HoHo Vienna, with its 24-story hybrid structure, illustrates the sophisticated integration of timber with other materials.

The environmental benefits are quantifiable and significant. One cubic meter of wood stores approximately one ton of CO₂, while prefabrication methods reduce construction waste by up to 80% and halve construction time. These advantages extend beyond environmental impact to include enhanced quality control, improved worker safety, and more precise project planning.

This research demonstrates that wood prefabrication represents not merely an alternative construction method but a comprehensive solution for sustainable residential architecture. The integration of engineered wood products with modern construction methods creates high-performance buildings while significantly reducing environmental impact, proving that sustainable construction can be both efficient and architecturally sophisticated.

The findings suggest that prefabricated timber construction offers a viable path forward for the building industry, combining environmental responsibility with practical efficiency. As demonstrated through successful case studies and quantifiable benefits, this approach addresses both the urgent need for sustainable practices and the industry's demand for efficient, reliable construction methods.



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