REGENERATIVE DESIGN FOR BUILT ENVIRONMENT & URBAN VOIDS. PROFESSIONAL WORKSHOP. ANALYSIS AND CONCLUSIONS/

The "Architectural Experiences" series of conferences is organised by the Faculty of Interior Architecture (UAUIM) and it represents an itinerant scientific initiative that unites scholars, academics, professionals, and researchers from various branches of design research.

This third edition is a scientific platform for examining regenerative design in relation to the urban void and the built environment. It aimed to expand the disciplinary lens by integrating strategies that address ecological health, carbon impacts, and human well-being, while incorporating theoretical, historical, and symbolic perspectives. The transformation of the void goes beyond a matter of spatial reactivation but of engaging collective imaginaries, socio-political histories, and the contested dynamics of territory. Traditional sustainability frameworks, while foundational, often rely on incremental metrics that fall short amid compounding environmental crises. Regenerative design, by contrast, articulates a paradigm premised on systemic renewal, prioritising circular resource flows, carbon-sequestering materials, reversible construction systems, and climate-responsive infrastructures. Such approaches enable architecture to move beyond reductionism and toward net-positive outcomes.

Yet, regeneration also demands a rethinking of methodological structures. It necessitates performance-oriented metrics that evaluate energy and emissions, biodiversity indices, evapotranspiration coefficients, thermal inertia, and soil permeability. These parameters expand the design brief across atmospheric, hydrological, and ecological dimensions, calling for spatialised carbon intelligence, multi-scalar feedback loops, and hybridised natural-technological systems. In parallel, the void must be read as a cultural and political artefact. Sites of abandonment are typically situated in areas vulnerable to flooding, overheating, or socio-economic marginalisation. Their regeneration offers the opportunity to align ecological adaptation with spatial justice. Moreover, these spaces often carry deep symbolic and affective weight traces of memory, conflict, resistance, or erasure, requiring design to navigate physical transformation and cultural meaning.

Starting with the professional workshop the architect's role was underlined as passing from aesthetic synthesis to systems mediation within this framework. Integrating environmental simulations, life cycle analyses, and participatory governance mechanisms is essential to developing interventions grounded in empirical rigour and local knowledge. In fragile or transitional territories affected by climate extremes or post-industrial decline, regenerative strategies provide adaptive, low-carbon, and community-responsive solutions.

To further affirm this way of thinking, this year's edition proposed, in addition to the call for papers and conference format, a professional workshop. This was the catalyst that brought together a diverse array of experts and divergent points of view to a single, tangible case study on a divisive site that perfectly embodies the core concept of the urban void: the Constanța Shipyard. Using the shipyard as a case study, the workshop aimed to generate speculative yet grounded conceptual proposals that respond to contemporary challenges, such as ecological identification, urban biodiversity, and sustainable regeneration. These proposals materialised into a series of potential development strategies.

Methodology & Format. The workshop brought together 28 participants, who worked in an interactive, team-based format. Participants were divided into two interdisciplinary groups, each focusing on one of the following sub-themes: urban scale - strategic regeneration - and architectural scale - adaptive transformation.

The first group aimed to explore the site at an urban scale to revive the harbour's ecosystem and reconnect the shipyard with the city of Constanța. The design challenge is to reframe this peripheral, mono-functional industrial zone as a regenerative urban interface, envisioning future uses that respond to both ecological logic and public needs. On the other hand, the other group focused on integration methods of one or more architectural objects within the shipyard. The objective is to develop site-specific interventions that balance memory and materiality with sustainability and function, proposing new hybrid uses for existing structures.

Collaborative work, iterative critique, and continuous exchange of ideas were central to the methodology, with group facilitators guiding each team through site analysis, design exploration, and conceptual development. In addition, two assistants provided technical and logistical support to each working group.

Discussions, drawing sessions, comparative reviews, and possible short design sprints supported the process. Each team worked towards a collective proposal that reflects a shared vision shaped by critical dialogue and multiple perspectives. By encouraging a move beyond conventional sustainability frameworks (often grounded in incremental performance), the income was to look forward to systemic strategies rooted in ecological regeneration, circular models of distributing resources, and net-positive outcomes.

Participants were invited to explore design as a multi-scalar, adaptive process that integrates environmental performance with cultural, historical, and symbolic dimensions. The urban void is not only a space to be reactivated but a territorial and affective artefact. It is often marked by socio-economic marginalisation, environmental risk, and collective memory. A possible transformation demands both ecological intelligence and spatial justice.

Through this process of the workshop, participants were encouraged to rethink architecture not as a static object, but as a responsive, living system embedded in a broader ecological and sociocultural network. By discoursing, drawing and thinking within a group with participants with multidisciplinary backgrounds, the working groups operated as cross-functional think tanks, merging the abstract precision of architectural theory with the strategic foresight of urban planning and the human-centred scale of product design. This diversity was not just professional but cultural. The dialogue benefited immensely from the interplay between international

experts, who brought specialised tools, and local architects and academics, who grounded these ideas in local reality.

Moreover, the strategies outlined in this article derive their value from this meeting of various specialists. The participants provided a specific combination of academic rigour, rooted in university research and theoretical frameworks, and the pragmatic, problem-solving mindset of professional practice.

Context & Objectives. The Constanța Shipyard, an emblematic industrial site located along the Romanian Black Sea coast, offers a unique opportunity to interrogate how large-scale infrastructural voids can be transformed through regenerative urban and architectural strategies. The challenge was to engage with the site's latent spatial, cultural, and ecological potential, while proposing innovative design responses that integrate sustainability, adaptability, and memory into a new vision for the built environment.

Constanța Harbour is the largest port on the Black Sea and one of the most significant maritime hubs in Europe, functioning as a colossal logistics hub, grain storage facility, and energy transit hub. Its scale is immense, stretching over 30 kilometres of coastline and serving as a defining yet often impenetrable border for the city. While the northern part of the harbour has seen modernisation and tourism-focused interventions, the southern industrial edge remains a complex puzzle of restricted access and heavy infrastructure. However, a major part of the infrastructure currently in use dates back to Romania's communist era, and the modernisation efforts have been local and frugal. Thinking about indisputable architectural and historical value, from the vast numbers of buildings present in the harbour, we can single out the Grain Silos built by architect Petre Antonescu and engineer Anghel Saligny in 1909 and 1915, which are part of the industrial heritage of the city.

Zooming in on the intervention site, the focus narrows to the shipyard zone, a brownfield strip caught between the city's high-density residential fabric and the working water. This area is characterised by a dramatic topographical rupture: a steep slope and a web of railway lines that physically sever the urban tissue from the sea. Currently, it functions as an urban void, a space that locals perceive as dangerous or forgotten, despite being the daily workplace for thousands of shipbuilders. It is here, in this fracture between the city's life and its industrial engine, that the workshop sought to intervene, asking how a place designed for building ships can also be built for people.

The aims of the workshop are closely aligned with the conference themes, bringing together all participants' expertise and study subjects around a specific case study with a clear purpose: formulating a series of potential development strategies for the local authority and harbour agency. Even though the process focused mainly on critical analysis and strategy development, the group proposed a series of potential design solutions to test and illustrate the main strategies, not as definitive proposals.

Analysis Trajectories & Design Philosophy. Perhaps the most significant outcome of the workshop was the unintentional synchronisation between the two groups. While the team focused on the architectural scale (forward being referred to as team A) operated primarily at the micro-social scale, focusing on the human experience, the worker, and the specific building, and the team concerned with the urban scale (forward being referred to as team B) operated at the macro-territorial scale, focusing on the landscape, the timeline, and ecological systems, their independent inquiries converged on several critical points.

The Constanta harbour and shipyard, in particular, is seen as a space composed of three distinct layers: the space used, a strip of workers' dwellings, and a large, noxious, brown field. It is also perceived as a place full of contradictions: for some, it is the city's hidden engine of economic activity; for others, it is a noxious, forgotten, and polluted place.

Both teams saw the site as an in-between space, and the main problem as one of accessibility and connection. Simultaneously, they both rejected the idea of completely excluding the industrial function, in favour of alternative functions more compatible with the city and more cosmetized. Redeeming the connection to the city, both tangible and intangible, requires acknowledging two realities that must coexist. The two realities in question are tourism and dwelling on one side and work and production on the other. Both teams agreed that, to balance this equation, a third function is needed to create new meaning and bring the existing aspects together. Something different from tourism and work could help attract more tourists and more workers. Moreover, it became increasingly clear during the brainstorming sessions that the auxiliary functions to be introduced would not be hidden from the city, encouraging visibility and accessibility design proposals.

For Team A, the primary crisis was social. Their analysis revealed two distinct communities operating in parallel but never intersecting: the residents (often an ageing population) and the shipyard workers, whose lives are largely contained within the harbour. Team B approached the site through the lens of morphology and ecology. They viewed the area not just as an urban void, but also as a social one. Their central debate revolved around visibility and access. How to bring people into a working industrial zone without disrupting it?

The debate focused on the following issues: defining the historical moments in time that bear significance to the place, generating meaning and defining the main land activator for community engagement. The goal was to determine a sustainable development strategy; therefore, the shipyard and the worker dormitories were viewed through three main lenses: community and culture, infrastructure and services, and time and memory.

Firstly, it highlighted the common ground strategy. By focusing on social connections and community engagement, the aim is to integrate diverse groups, including local workers, students, tourists, and permanent residents. It emphasises culture and connection as tools for regeneration. This strategy would have a great impact on the possible design solution of the dwelling area, in particular.

The second aspect of the strategy addresses the area's physical and functional needs by proposing a green belt, improved transportation, and essential services. It also includes the development of common areas and sports facilities. This strategy resonates more with the problem of connecting the city with a powerful gesture that could bring both places together through infrastructure and services.

Thirdly, focusing on time and memory, the hourglass approach was proposed. This pillar focuses on the site's historical legacy, specifically debating whether to preserve the memory of industrial infrastructure, such as the silos built by Anghel Saligny, or the workers' collective memory, building on something more ephemeral. This idea incorporates sustainability through energy efficiency and a circular economy approach.

Team B was tasked to take into account a large-scale perspective of the site. Therefore, their approach viewed the site through the lens of morphology and ecological sustainability. On this analysis scale, two distinct perspectives were presented that, together, could tie the strategy together: the potential and feasibility of implementing a bioremediation process in this area, and the debate around visibility, function, access, and meaning.

By viewing the area not only as an urban and social void but also as an environmental wound requiring healing to filter pollutants and to reduce the heat island effect, it added additional meaning to the seed function requirement proposed by the first group. This strategy was put to the test using a parametric biodiversity enhancement tool to analyse the harbour area and to identify the places most likely to sustain vegetation successfully. Therefore, alongside the functions scattered along a green belt encompassing commerce, sports, and culture, the analysis proposed adding a wetland to help filter water and potentially transform the area's ecology. However, it is important to note that proposing a wetland on a coastal site could yield poorer results than in other continental areas due to the imminent rise in sea levels worldwide; the best solution is a multi-systemic one, not only natural but also not hyper-industrialised.

Secondly, regarding the intervention strategy, the team focused on the concept of visual permeability while maintaining a relative level of independence and separation between the industrial and other functions. Moreover, it was highlighted that the value of a clear communication strategy for the proposed projects, especially the perception of industrial zones as a spectacle, is completely transparent to city life but not necessarily tangible in a physical sense. This dichotomy could generate significant interest and resolve the incompatibility between the two worlds of the harbour.

In both cases, the decision to maintain the industrial function as the predominant focus in the harbour's future strategy was not taken lightly. Here, the participants considered the Danish example, where similar industrial and harbour areas are being transformed into high-density residential and mixed-use developments. This strategy usually entails moving industrial areas completely outside the city, introducing a seed activity, and letting the city naturally coagulate around that focal point, forming new urban areas. In our case, however, the participants proposed another approach that would integrate the Harbour Authority's existing shipyard and offices with the city. This decision has both urban, ecological, social, and financial reasons.

Conclusions & Design Strategies. Taking everything into account, the consensus that emerged from the "A.E.III REGENERATIVE DESIGN FOR BUILT ENVIRONMENT & URBAN VOIDS" workshop challenges the conventional trajectory of waterfront regeneration, which typically favours the total erasure of industrial functions in the pursuit of aesthetics. Instead, the participants articulated a robust argument for a hybrid model of urban existence. The fundamental conclusion is that the Constanța Shipyard and Harbour must not choose between being a closed industrial engine or an open leisure destination; rather, it requires the insertion of a "third function." This mediating layer, conceived as a fusion of education, culture, and innovation, reconciles the site's productive capacity with the city's civic needs.

If there was to imagine a future architectural design and urban masterplan contest for this territory, we must prioritise proposals that maintain the shipyard's operational status while making its operations compatible with urban life, transforming the friction between the residential fabric and heavy industry into a symbiotic relationship.

From an ecological perspective, the workshop established that simple landscaping is insufficient for a site defined by its toxicity and vulnerability. The development strategy must pivot from cosmetic greening to deep systemic healing, viewing the brownfield as an environmental wound that requires active bioremediation. The recommended approach involves implementing multisystemic solutions in which seed functions, such as wetlands or research-based vegetation zones, act as filters for pollutants and buffers against the inevitable rise in sea levels. Consequently, any future design solutions must demand performance-based metrics that address long-term climate adaptation, ensuring that the regeneration of the soil and the mitigation of the heat island effect are treated with the same rigour as the built architecture.

On a social and spatial level, the strategies emphasised the concept of permeability without total accessibility. Recognising that a working shipyard cannot be entirely open to the public, the conclusions advocate for a design philosophy that transforms the industrial process into a visual spectacle. By creating vantage points, elevated pathways, or transitional buffer zones, the city can visually reclaim the harbour, even where it cannot do so physically. This approach addresses the social segregation identified in the analysis, aiming to weave together the parallel lives of residents and shipyard workers. The strategy suggests that the site's heritage should not be limited to preserving monumental structures, such as the Anghel Saligny Silos. However, it must also honour the ephemeral collective memory of the workers and the daily existence of the labourforce, integrating these narratives into a circular economy framework that serves students, tourists, and the ageing local population alike.

From a product and graphic design perspective, it is suggested an approach that focuses on democratic design with the aim of triggering social innovation. Future design proposals should therefore focus on all scales of interaction, urban, architectural and object design. This area of intervention should centre on cohesive visual identity and signs, as well as local interventions for urban furniture and infrastructure pavilions. Moreover, it is advised that the product and furniture designs in the dormitories and communal spaces for workers should be seen as opportunities to enhance the community atmosphere and foster interaction and innovation.

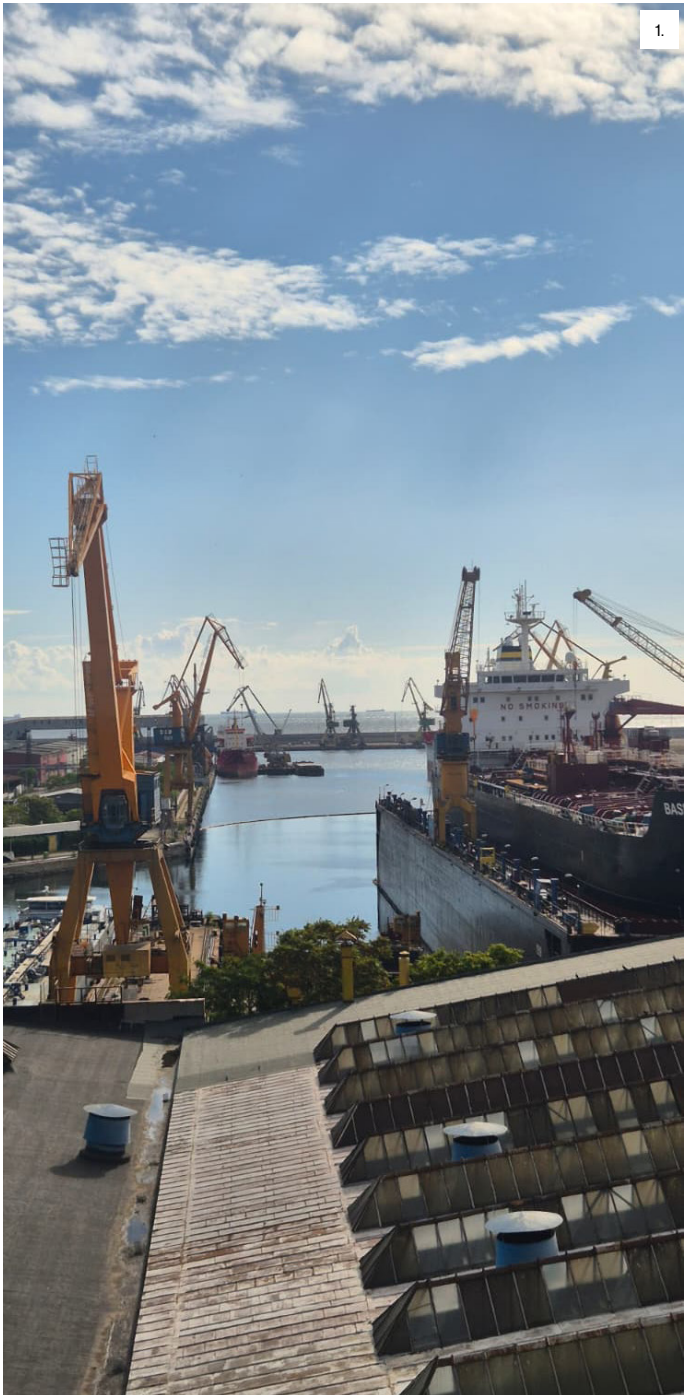
Ultimately, the blueprint for the Constanța Shipyard's regeneration should not aim for a static masterplan but rather for a dynamic, process-oriented

system of interventions. The workshop concludes that the most viable path forward is a mixed strategy that introduces natural, communal, and industrialised solutions. Future intervention proposals should therefore call for reversible, climate-conscious, and civic-centred solutions. The ambition is to create a common ground where the industrial past and the sustainable future intersect, proving that a place designed for building ships can, through intelligent adaptive reuse, ecological sensitivity and responsible design, be successfully rebuilt for people and machines.

First team. Urban Scale: Strategic Regeneration
Group members: Emanuele Naboni, Roberto Giordano, Daniel Armenciu, Mariachiara Bonetti, Lussignoli Luciano, Davide De Vito, Mónica A. Muñoz Veloza, Jacopo Andreotti, Jacopo Gasparotto, Ruth-Adalgiza Iacob, Alexandra Diana Stan, Alexandra Diana Dunel

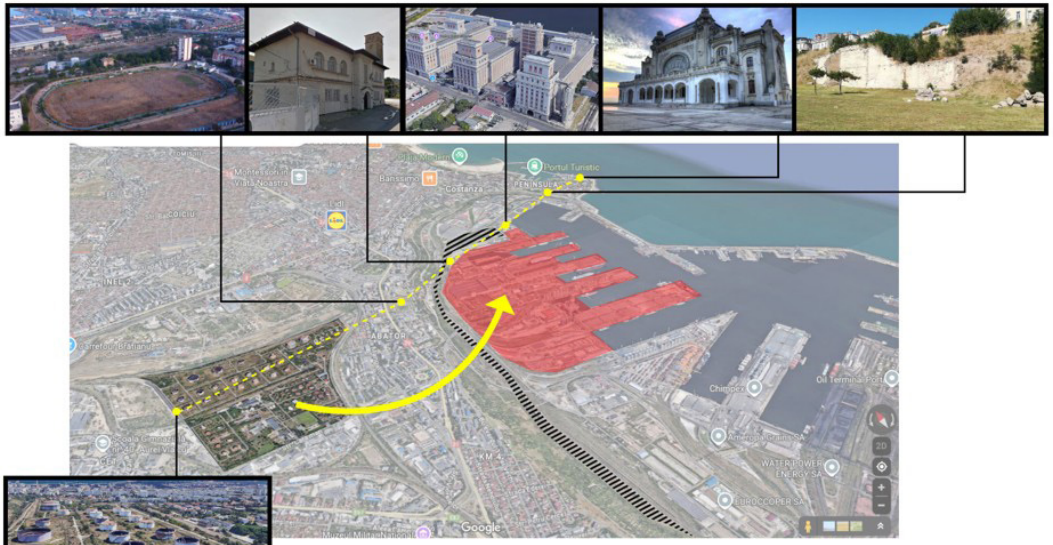
Second team. Urban Activator 4KM4
Group members: Jacopo Andreotti, Luis Bosch Roig, Massimo Crotti, Oana Diaconescu, Carlotta Fasano, Jacopo Gasparotto, Oana Maria Ilie, Bogdan Ionita, Anna Kerschbaumer, Parastou Mollhosseinaili, Iulia Stefanescu, Francesca Thiebat, Valerio Tolve, Giovangiuseppe Vannelli

Figures.
FIGURE 0 - photograph of the Constanta harbour. credit: Alexandra Dunel;
FIGURE 1 - team 1 heritage analisys of the site;
FIGURE 2 - team 1 proposal and analisys of the site;
FIGURE 3 - team 1 climate change and summer perceived temperature 2050;
FIGURE 4 - team 1 proposal perceived temperature by 2050;
FIGURE 5 - site aerial view;
FIGURE 6 - team 2 sketch of proposal intervention on existing dwelings;
FIGURE 7 - team 2 sketch of proposal intervention;
FIGURE 8 - team 2 masterplan proposal;
FIGURE 9 -team 2 sketch of proposal intervention in section.



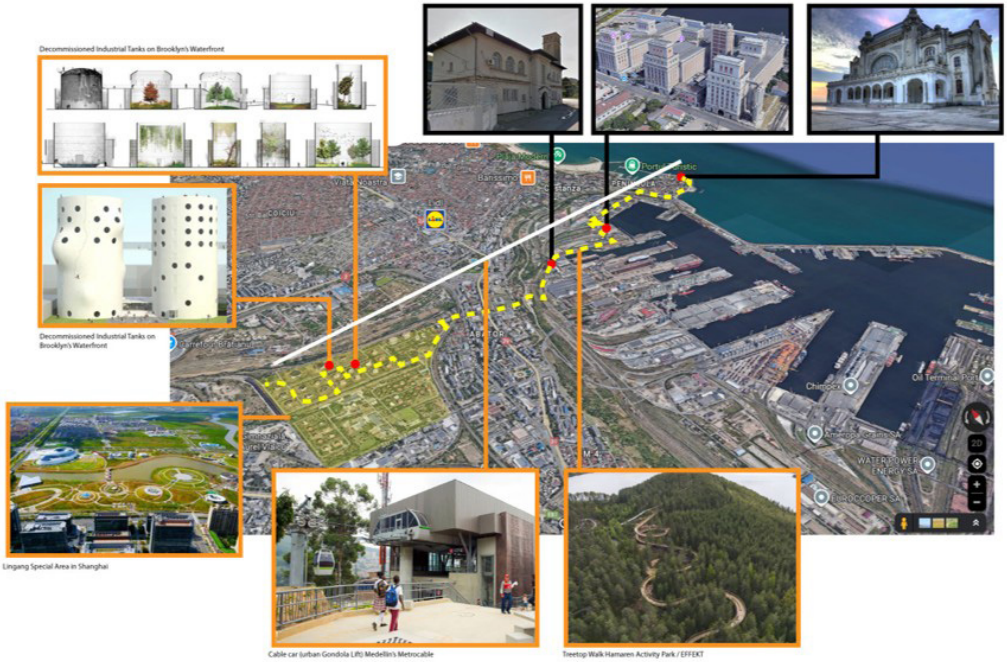
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HERITAGE

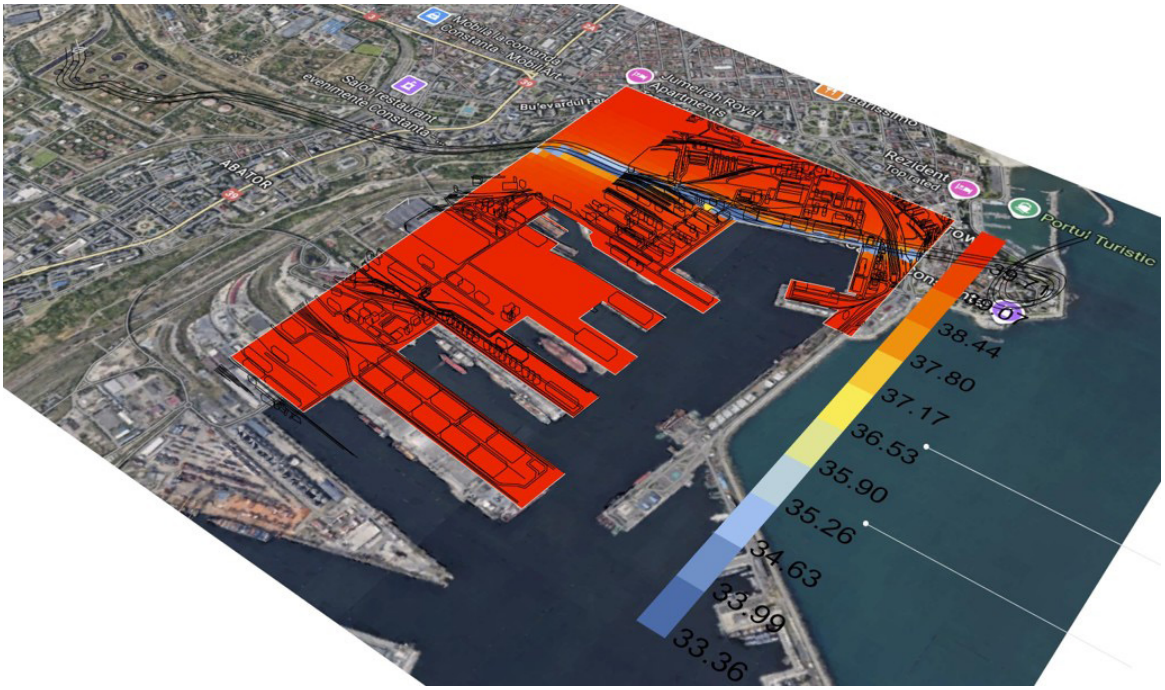


OPPORTUNITY

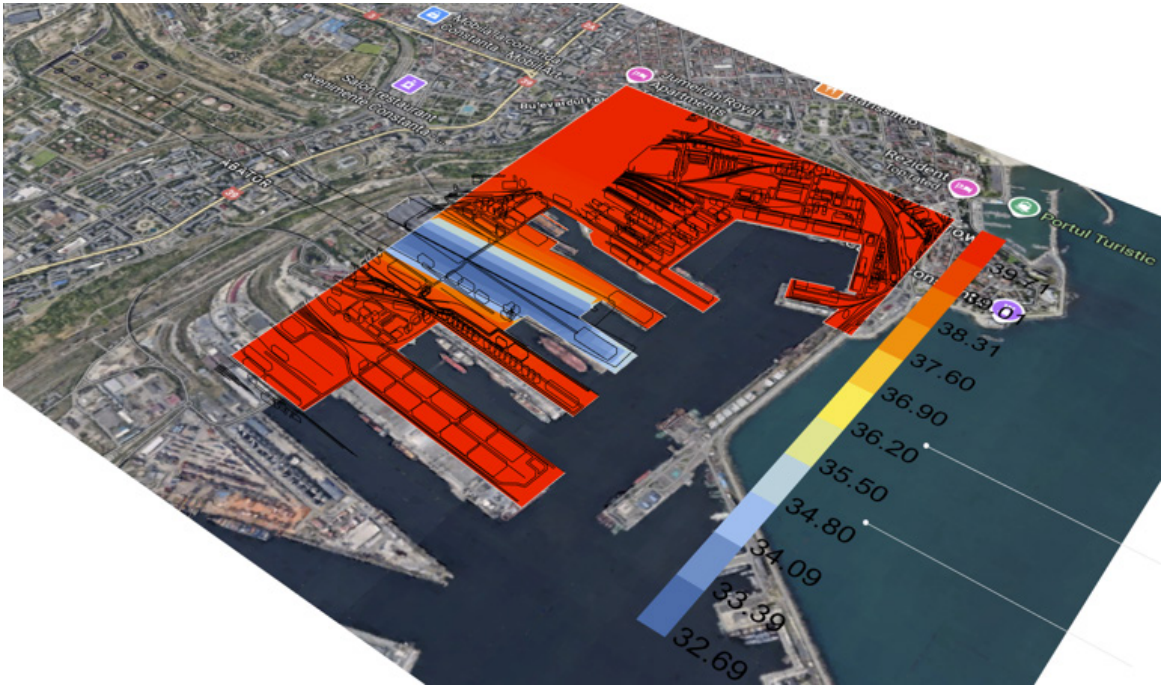
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2.


Portul Turistic
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37.80
37.17
36.53
35.90
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34.63
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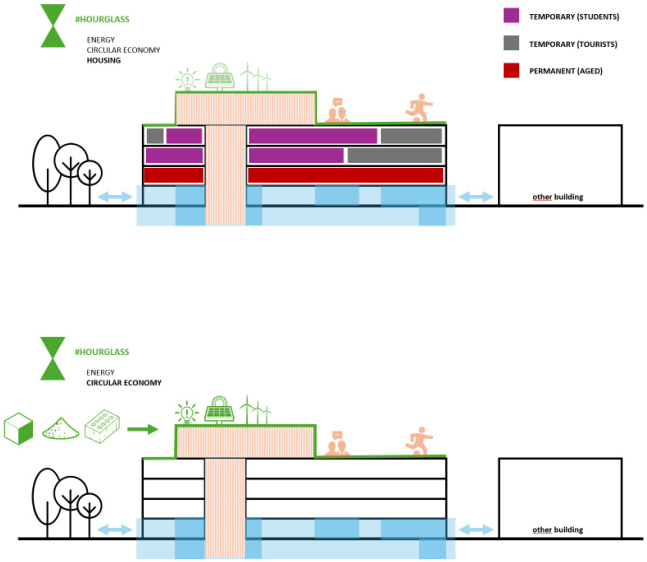
3.


Portul Turistic
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35.50
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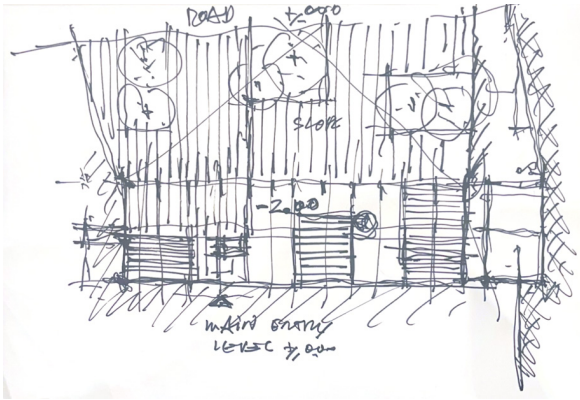
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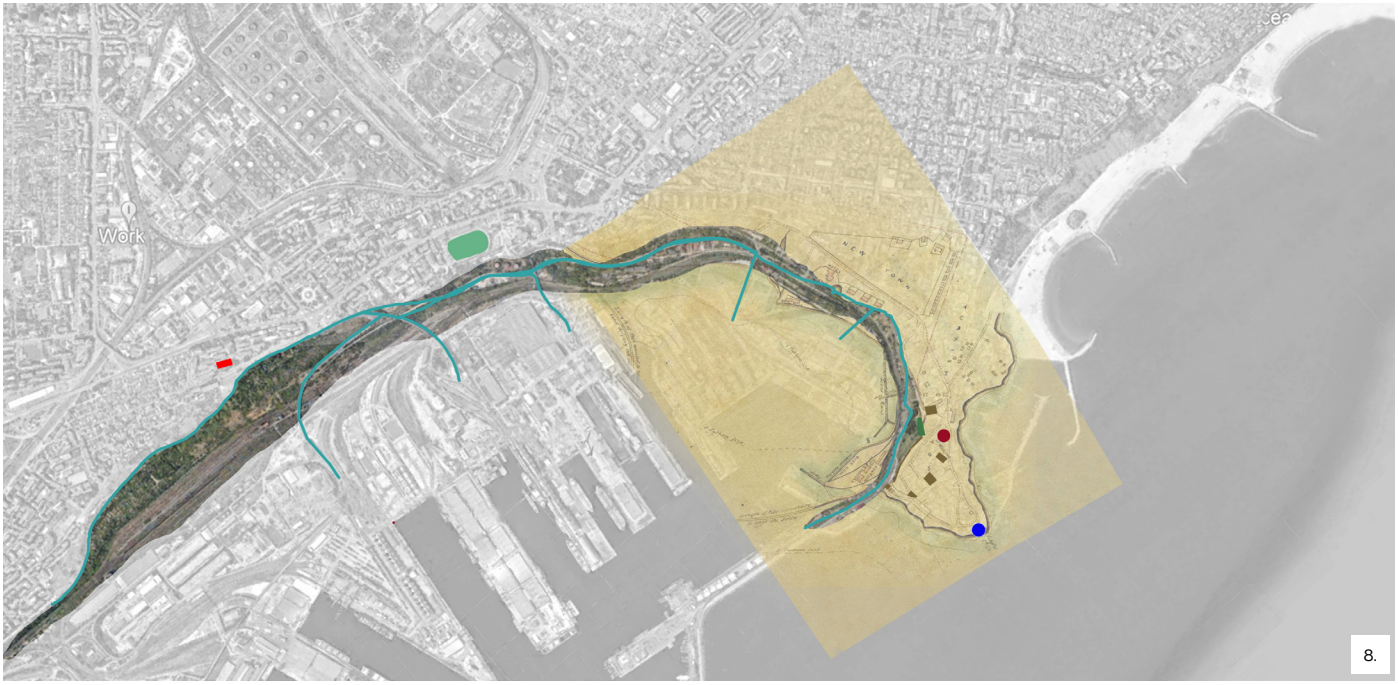
5.


#HOURGLASS
ENERGY
CIRCULAR ECONOMY
HOUSING
TEMPORARY (STUDENTS)
TEMPORARY (TOURISTS)
PERMANENT (AGED)
other building
#HOURGLASS
ENERGY
CIRCULAR ECONOMY
other building

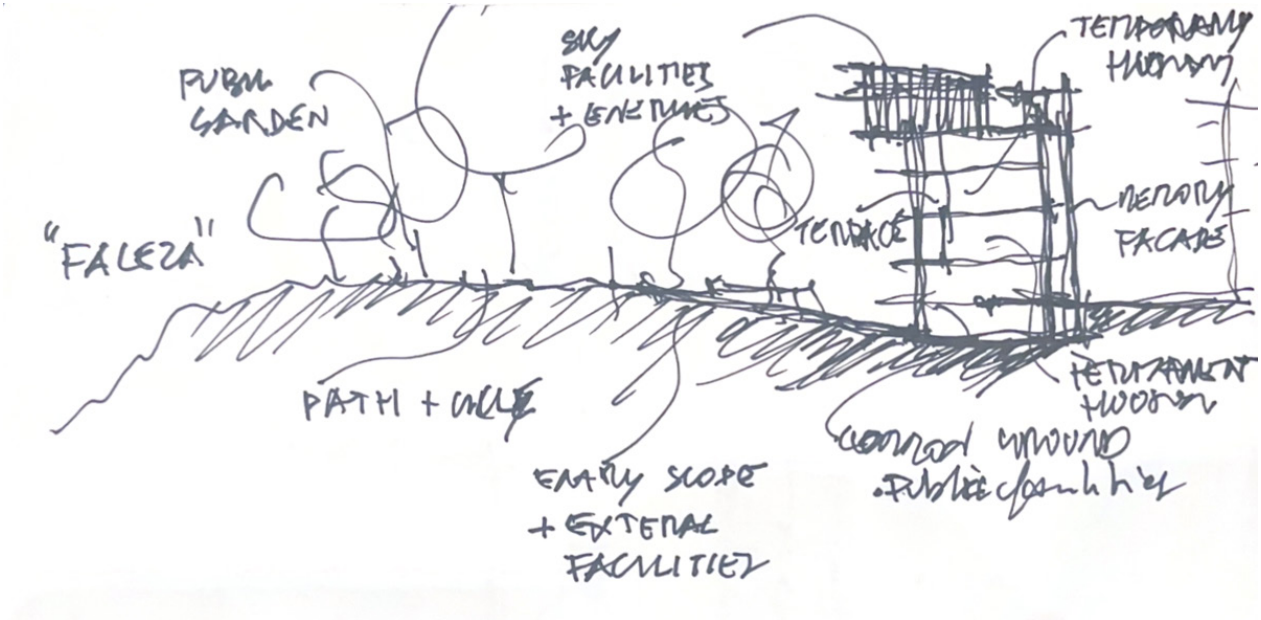
7.



6.


Work

8.


PUBLIC GARDEN
"FALEZA"
PATH + CYCLE
EARLY SCOPE
+ EXTERNAL
FACILITIES

9.

GHOSTS OF FUNCTION REGENERATIVE PRACTICES BETWEEN INDUSTRIAL MEMORY AND EMERGENCY SITUATIONS /

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Abstract. In the volatile aftermath of pandemics and wars, architecture is increasingly defined by urgency. It becomes not only the art of building, but the practice of repair—of lives, spaces, and systems under strain. This paper investigates how abandoned industrial buildings might be reclaimed as strategic anchors for emergency architecture. Far from being inert relics, many disused industrial structures retain spatial, material, and symbolic value that speaks directly to the challenges of the present. Across Europe, conflict, climate, and economic instability push people into transience, while emergency architecture—designed to be temporary—often becomes a permanent condition. Simultaneously, vast industrial sites lie derelict, awaiting demolition or speculative reinvention. But what if these two urgencies could intersect?

Both industrial and emergency architectures disrupt fixed categories. Industrial heritage hovers between ruin and reuse; emergency structures between the provisional and the permanent. Refugee camps or flood shelters are often designed for temporariness, yet persist for years, becoming spaces of survival without true belonging. These hybrid conditions challenge conventional notions of duration, purpose, and identity. They compel us to rethink architectural time—not as linear, but layered, recursive, and affective.

This paper argues for adaptive reuse not as nostalgic preservation, but as a form of spatial resilience: aligning material reactivation with social need, ecological responsibility, and cultural memory. The question becomes not what to preserve, but how to transform—how design can mediate between loss and possibility.

By combining phenomenological analysis with architectural case studies, the paper explores how industrial structures—valued for their durability, spatial generosity, and embeddedness in the central urban fabric—can host forms of emergency inhabitation that are both functional and meaningful. In reactivating these voids as sites of care and repair, we glimpse a regenerative ethic—one that refuses to choose between memory and utility, between shelter and significance.

Introduction. Architecture in a State of Urgency. Emergency responses typically rely on structures conceived as temporary: provisional hospitals, modular shelters, refugee accommodations, or rapidly deployable support facilities. Yet these architectures of urgency, intended as stopgaps, routinely become long-term environments. Camps persist for decades, and ad-hoc communal infrastructures become embedded in the urban fabric. The central problem is thus not simply the scarcity of emergency space, but the mismatch between the temporary logic of emergency design and the permanent realities of human displacement. When architectures meant for weeks endure for years, they fail both spatially and ethically, forcing their occupants to depend solely on the basic necessities of life (Filion, Sands & Skidmore, 2016).

This contradiction exposes a deeper challenge: architecture continues to operate within linear timelines of planning, while crises unfold cyclically, unpredictably, and with prolonged aftermaths. The pandemic demonstrated how quickly everyday spaces must shift functions; the war has shown how violently permanence can be undone. Both contexts highlight the need for a new architectural temporality, one that is capable of navigating transitions between emergency and long-term inhabitation.

Meanwhile, European cities, including many in Romania, host expansive landscapes of abandoned industrial buildings. These former engines of production now exist in a suspended state between ruin and potential. Their generous spatial typologies, robust materials, and central locations make them uniquely suited to support flexible, layered uses. Yet in many regions, they remain simply unclaimed voids, victims of inertia and ignorance on the part of owners, the community, and the authorities (Crișan, 2023).

This article proposes that the unresolved temporality of emergency architecture and the liminal status of industrial heritage are not separate crises but interdependent opportunities. By rethinking adaptive reuse as a regenerative, socially responsive practice, abandoned industrial sites can become durable hosts for forms of emergency inhabitation that move beyond mere shelter.

Between Memory, Materiality, and Latent Potential. Industrial architecture endures as a material witness to the economic, social, and cultural ruptures that shaped modernity. It carries the layered memory of the Industrial Revolution and the scars of deindustrialization, while remaining deeply persistent in meaning. David Lowenthal's reflections in The Past Is a Foreign Country help clarify this paradox: the past offers *"benefits and burdens"*, providing reassurance, identity, guidance, and even forms of escape (Lowenthal, 2015).

Their identity value emerges from their figurability: the sawtooth roof, the water tower, the chimney, all represent typologies that have long structured the mental maps of communities. Christian Norberg-Schulz situates such anchors within the existential space of a place, where landmarks stabilize collective orientation and grant a sense of continuity (Caciuc, 2023). This recognisability is not merely aesthetic; it is affective. When industrial buildings disappear, the loss is spatial and emotional, eroding the tacit sense of belonging that these structures quietly maintain.

Laurajane Smith's understanding of heritage as a process rather than a product further grounds this viewpoint. Industrial sites matter not solely because of their materials, but because of the attachments, memories, and negotiations that surround them (Smith, 2006). The emotional dimension is measurable: research conducted by the Universities of Cambridge, Surrey, and Southampton during the COVID-19 pandemic showed that heritage spaces improved well-being and reduced anxiety, confirming that such environments support autonomy, purpose, and connectedness (Sofaer et.al., 2021).