

# Landscape Regeneration of Ex-Industrial Sites Along the Lower Danube:

## From Academic Perspective to Local Action

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### Introduction

During the communist period, the Romanian cities along the Lower Danube have evolved into centers of sustained, even excessive, industrial activity.<sup>1</sup> While the system of centralized economic planning was primarily, almost exclusively, focused on industry, the fall of communism and the subsequent transition to a market economy profoundly disrupted this pattern. As a result, many industrial sites in these cities have been abandoned over the past few decades, leaving ruined structures and large underutilized areas.

A number of these sites, mostly privately owned, have lost much of the built fabric that could have been preserved as valuable industrial heritage. Over 34 years of neglect, these areas have been gradually reclaimed by spontaneous vegetation, a process that has enhanced local biodiversity but further disconnected them from the city's structure. Typically located in marginal urban areas, these sites occupy an indeterminate space between nature and industry, an “in-between” territory. They still bear the imprint of past human activity and industrial functions — whether in the surviving fragments of buildings or machinery, in polluted soils or waters, or even in the very infrastructural logic that once connected them to the rest of the city. With many names and meanings,<sup>2</sup> often accommodating diverse temporary uses, the abandoned or post-industrial sites along the Danube remain strange and still unassimilated, even as they continuously interact with the cities' boundaries and surrounding natural limits. For the specific case of small and medium-sized Danubian cities, their current potential is most evident in the landscape, which highlights their distinctive connection to the Danube, both as a natural ecosystem and a transport corridor.

Figure 1 shows the generic picture of Romanian industrial cities along the Danube, mirroring the Bulgarian banks, featuring: Moldova Nouă, Orșova, Drobeta Turnu Severin, Calafat, Corabia, Turnu Măgurele, Zimnicea, Giurgiu, Oltenița, Călărași, Fetești, Cernavodă, Hârșova, Brăila,

1 The towns on the Lower Danube in Romania have evolved since the mid-19th century (when, after the Treaty of Paris of 1856, navigation became gradually free under the supervision of the international Danube Commission) from a poorly represented industry (a mixture of manufacturing, grinding mills, joinery, and small factories) to motorized and extractive industry. At the same time, ports' capacities increased and required the development of specialized waterfront facilities as docks loading grain, timber and livestock, equipment for transport of industrial goods. This development occurred over a relatively short period of time, so that by the interwar period many towns already had a solid industrial economy.

2 Existing as generic “brownfields” or with nuances, as “scars” of the recent past (Anna Storm, *Post-Industrial Landscape Scars* (New York: Palgrave Macmillan), 1), persistent “urban voids” within the porous urban fabric (Bernardo Secchi, “Un'urbanistica di spazi aperti,” *Casabella* LVII, no. 597-598 (1993), 5-9), “terrains vagues” (Ignasi de Solà-Morales et al., *Differences: Topographies of contemporary architecture* (Cambridge, MA: The MIT Press, 1997), 38-41) or even perceived as “different spaces” (Michel Foucault, “Altfel de spații,” in *Altfel de spații. Studii de heterotopologie*, ed. Ciprian Mihali (Bucharest: Ed. Paideia, 2001), 68-73).

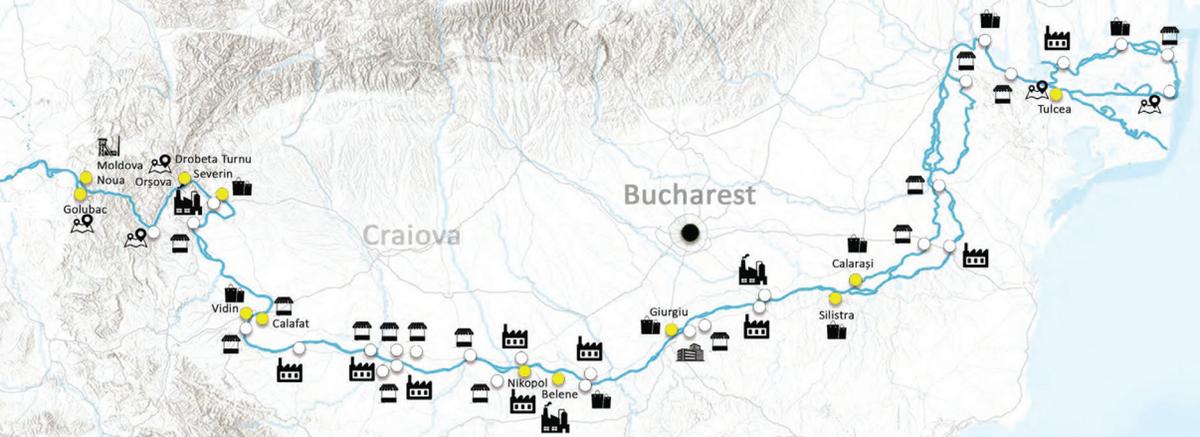


Fig. 1: The character of urban economy during the post-socialist transition - Romania and Bulgaria.

- 1 – HI: Developed industrial city/town with the dominance of heavy industry in local economy (machinery, iron- and steelworks, automobiles, complex chemical)
- 2 – LI: Developed industrial city/town with the dominance of light industry in local economy and with the variety of industrial sectors (food, furniture, textile, leather, wood, ceramics)
- 3 – TO: City or town with tourism-led development  
- tourism, culture, leisure
- 4 – TM: Mining town around a mine or quarry  
(based on mineral deposits, cement processing)
- 5 – MT: Market town with development active central market square/street and local crafts, but with no industry and with agriculture at outskirts
- 6 – SC: Service city where the modern tertiary sector (retail, services, tourism) is dominant, while industry is at the second place
- 7 – SU: A special type of the town with the facilities of a local service centre facilities which is under the strong influence of a big city in vicinity (but it still not a typical suburb)

Galati, and Tulcea. They all developed strongly as industrial cities, sometimes in tacit competition rather than in cooperation with the Bulgarian counterparts, and now display large brownfields.

The remains of industrial sites in small and medium-sized cities are a valuable resource for analyzing and understanding the phenomenon of urban growth and decline to which they were subjected. The ambiguous nature of these sites and their visible social, economic, cultural, and environmental effects call for a reassessment of their significance within the city's structure, form, and boundaries.

To address their complexity, the interdisciplinary approach, in which regional strategic planning, urban design, architectural solutions, and landscape design mutually inform one another, could be tested or even catalyzed through educational experiments and research. Consequently, in the following pages, we will present two directions in which the academic curriculum and research have sought to raise students' awareness and knowledge of this issue.

From a pedagogical perspective, we ask whether, despite their present disrepair/neglect, these sites hold potential and, consequently, offer hope for transformation into places fit for a contemporary scenario; whether the preservation of memory could endow them with identity and a unique *genius loci*.<sup>3</sup> What becomes essential is the search for a legitimate politics of memory, in which the experiences of the past and the present are shared to form new understandings of old places.<sup>4</sup> Such an approach would allow for a shift in perspective regarding their future.

In this respect, on the one hand, the issue of the industrial areas of the Danube cities has been programmatically incorporated in the pedagogy of projects; on the other hand, some academic research projects (B-Lab, DANURB, DANURB+, and Danubian\_SMCs) developed in the "Ion Mincu" University in Bucharest (UAUIM) have focused on the problematic of abandoned and post-industrial areas along the Lower Danube, examining their loss of identity and exploring their potential as landscape-based resources through interdisciplinary academic research and educational experimentation, aimed at redefining the relationship between city, community, and river.

3 With reference to Christian Norberg-Schultz, *Genius Loci: Towards a Phenomenology of Architecture* (New York: Rizzoli, 1980).

4 Storm, *Post-Industrial Landscape Scars*.

### Industrial Zones As Resources in Academic Projects

The abandoned industrial areas in small and medium-sized cities are gaining increasing attention in project pedagogy in all architectural and urban Schools across the country, sometimes in tandem with media-driven socio-cultural events or cultural initiatives, often in collaboration with various NGOs. The Danube cities are particularly compelling due to the natural setting's attractiveness, especially when captivating professional and theoretical narratives complement the project on the water-city relationship. At UAUIM, several abandoned sites in Giurgiu, Călărași, and Brăila (close to Bucharest and easily accessible to students) often served as case studies and starting points for urban regeneration projects, many of which featured in diploma projects. In recent years, students have frequently chosen abandoned industrial sites for their diploma projects.

At this stage, it is worth noting that the complexity of these types of sites is perceived as an attractive challenge—in the graduate students' analyses, it is seen as a strength. Nonetheless, factors such as site scale, safety conditions, or restricted access imposed by property owners can at times limit the integration of these areas into the standard program that underpins the academic training in urban planning, landscape design, or architecture.

Generally, students' solutions take the form of functional conversion, in which the renovation and rehabilitation of existing buildings coexist with landscape proposals, with urban parks frequently serving as the central subject. The majority of proposals tend towards the valorization of the sites through a strong emphasis on social and leisure spaces, embracing productive or craft activities reinvented and relocated as "hubs," where green spaces are always present. The waterfront is invariably devoted to social activities, and on the old harbor piers and berths, administrative buildings and barns become recreational facilities, with craft centers and small industries in the background. All these emphasize the potential of the natural setting and reflect contemporary social aspirations for the human-water relationship. Occasionally, these projects are showcased to the public, raising awareness and refreshing ideas.

### Industrial Zones As Resources in Research Projects

Going further and, hopefully, with more tangible effects, some universities act as partners in research projects financed through European funds, within the framework of programs dedicated to enhancing cohesion and regional development. They are extracurricular programs expected to have a more substantial social and cultural impact and produce new, contemporary, sustainable administrative perspectives. Regarding the relevance of industrial sites, we will present below some of the latest projects in which UAUIM (faculty and students) has been or is involved.<sup>5</sup>

*B-LAB*<sup>6</sup> was aimed at researching and developing alternative educational methodologies on cultural diversity in the outskirts of Brăila, with activities designed to foster understanding of the urban context and to propose specific interventions that engage both inhabitants and public administrations on issues related to the quality of urban life. The site included an old brewery and a mill, landmarks that have become abandoned industrial sites. The project proposed social awareness-raising interventions, including artistic installations, graffiti, performances, and

5 It should be noted that the subject of the Danube is present in several projects, many of which focus on cultural resources, heritage, or other socio-cultural and economic aspects, without explicitly referring to industrial areas. These include the VVITA (<https://vita.uauim.ro/>) and Living Danube Limes (<https://dtp.interreg-danube.eu/approved-projects/living-danube-limes>) projects. Research activities on the Danube have also been carried out by the Faculty of Architecture of the Polytechnic University of Timișoara.

6 BRĂILA LABORATORY - Alternative approaches to urban peripheries in a city with stagnating growth (B-LAB), within the program PA17RO13 - Promoting diversity in culture and arts within European cultural heritage, funded by the EEA Financial Mechanism (2009-2014).



Fig. 2: Images illustrating activities for reactivation of some places; left: a community space with seating areas and a painted wall has been created, which can be seen from the public area of the old brewery; right: an intervention at a public transport station (May 2016)

community activities. These gestures, while sometimes surprising to residents, were intended to draw attention to the loss of local identity. Beyond creating an atmosphere of hope and revitalization, the project also highlighted specific weaknesses, such as the absence of community cohesion, apathy, and disinterest among the inhabitants—real obstacles to the recovery and revitalization of a site with valuable potential. (Fig. 2)

*DANURB and DANURB+*<sup>7</sup> had the general objective of exploring and identifying the hidden regional, primarily local, heritage outside the main tourist routes in the Danube basin, as well as promoting heritage as an element of identity and stable foundation for resilient local and regional development. Among these, abandoned industrial areas, once the driving force and source of pride for local communities, receive particular attention. The projects focused on cities on both banks of the Danube, analyzing the river's role in each: as a barrier in some cases, and as a connecting element and attractor of cooperation, in others. Yet, in each case, the Danube has played an important economic role, sustaining communities and facilitating trade.

The *Danubian\_SMCs*<sup>8</sup> project accompanied the DANURB+. It extended academic research on Danube heritage by involving seven universities from five Danube countries in the Erasmus project, thereby enhancing transnational research, which is seen as a necessity for understanding and developing small and medium-sized cities, including brownfield areas. This project was set up as a research and educational initiative, one of its results being the creation of a study program on the issues facing these cities in the countries involved, highlighting the specific character of the Danube region.<sup>9</sup>

## Some Conclusions

Contemporary urban development reveals a transition from industrial sites to service areas, reflecting historical economic and social cycles. From a service-oriented economic profile to an accelerated, often forced, industrialization in the second half of the 20th century and back, these localities are now returning to their original roots, repositioning themselves within the

7 DANURB - DANUBE URBAN BRAND and DANube Urban Brand + Building Regional and Local Resilience through the Valorization of Danube's Cultural Heritage - European research projects, which belong to the European INTERREG-Danube Transnational Program ([www.interreg-danube.eu/](http://www.interreg-danube.eu/)); successive projects carried out between 2017-2019 respectively 2020-2022; in 2025-2027 the subject is continued with Danube Ruralscapes (<https://interreg-danube.eu/projects/danube-ruralscapes/news/from-danurb-to-danube-ruralscapes-our-journey-continues-1>).

8 Creative Danube: Innovative teaching for inclusive development in small and medium-sized Danubian cities (<https://sites.google.com/view/danubian-smcs/home>), (partially) funded by the ERASMUS+ grant program of the European Union. Implemented between 2019 and 2022. <https://sites.google.com/view/danubian-smcs/home>.

9 The project's outcome consisted of: Methodological guidelines and new theoretical and practical methods of interdisciplinary teaching for assessing small and medium sized cities (SMCs) on Danube; Report of data collection of good practices and teaching/ learning cross-border cooperation on Danube SMCs for transferring research and innovation in continuing education; Teaching module framework for assessing the inclusive development of Danubian small and medium sized cities.

territorial system. Given the demographic and economic challenges, including significant shrinkage, faced by many Danube cities, the feasibility and sustainability of traditional urban regeneration approaches for these industrial sites became questionable. In such cases, academic research and student project visions can offer new perspectives on abandoned sites, often turning local constraints into opportunities, driven by idealism and boldness. These projects display visions that integrate co-working and social spaces within pleasant natural settings, thus emphasizing the need for new green policies and a humanist revival. As water is reconsidered for its immense potential as a powerful civic attractor, it is reasonable for the Danube cities to be the first to adopt this approach and to prioritize the riverscape.

Brownfields, questionable use of some industrial sites, and abandoned fortifications attract students' interest in revitalization strategies, where promoting local identity is a common approach. Thus, brownfields are re-evaluated and associated with architectural-industrial heritage, and students' projects draw attention by trying to bring them out of anonymity or obscurity. In the cultural landscape of the Danube, these sites become a cross-border tangible and intangible heritage that embodies history, regions, and places. Projects focused on brownfields, such as in Giurgiu (former Sugar Factory, port/fortress) or Călărași (Siderca, port),<sup>10</sup> emphasize the shaping of the cultural landscape and aim at valorization through preservation and integration, frequently supporting social initiatives as well.<sup>11</sup> Of course, there are also limitations to the projects, as their translation into reality can significantly change the initial vision. Although limited resources constrain the direct implementation of such initiatives, the engagement and promotion of these ideas in academic contexts help keep the debate on brownfields active, alongside many other urban and cultural issues.

In parallel, the productive capacity of the existing infrastructure (railways, various equipment, buildings, even industrial ruins, etc.), and the availability of large plots suitable for industrial transformation or new relocation should be attentively studied. The extent to which industry and leisure can coexist is, in fact, the main research topic. Studies of industrial zones show interest and commitment, yet development is often heavily hindered by present ownership.

Brownfields are local challenges, empirically experienced by the participants, and studied in realistic relation with their connection to the specific urban system and the Danube's proximity; their developments are correlated with the city's socio-economic capacity for reinvention, property ownership interests, and the alignment and endurance of local administration's policies to sustainable developments and with inhabitants' expectations.

These sites, valuable for their local significance, symbolism, and socio-cultural memory, as well as their location and economic potential, require new perspectives and complex interventions. Their success depends primarily on understanding and aligning with stakeholders' interests, but also requires the strong involvement of the local community, which in many cases needs to be reactivated; at this point, the collaboration with local civic organizations becomes essential.

In fact, all projects (hypothetical or research) are grounded in a humanistic approach aimed at rediscovering or even creating *a new kind of place identity* to be shared with local communities, establishing meaningful roots between people and spaces, and eventually contributing to material development. By revalorizing the natural potential and the industrial memory, these approaches shed a new light on the cities along the Danube. After a long period of neglect and denial, they have come to the attention of the public, of specialists, and above all of the specialists of tomorrow - the students who participate enthusiastically in these projects and who will directly participate in their future development. As mentors, we observed that many of them were born in this Danube region and regard the new revitalization perspective as a matter of local pride and civic commitment towards their cities and the Danube.

10 [https://issuu.com/angelica.stan/docs/catalog\\_danurb-compressed](https://issuu.com/angelica.stan/docs/catalog_danurb-compressed), last accessed Sept. 5, 2025.

11 Often starting informally and later becoming formalized, there are relationships of mutual creation or support between these projects and local NGOs.

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Fig. 1: *D+Atlas. Atlas of Hidden Urban Value along the Danube*, Map 3.4. [https://dtp.interreg-danube.eu/uploads/media/approved\\_project\\_output/0001/55/607b6af557e450ad142ce571758fde9503e2ae77.pdf](https://dtp.interreg-danube.eu/uploads/media/approved_project_output/0001/55/607b6af557e450ad142ce571758fde9503e2ae77.pdf), accessed September 5, 2025.

Fig. 2: © Angelica Stan, 2016.