



TICCIH SERBIA

International Scientific Conference

# RETHINKING INDUSTRIAL ROUTES AND NETWORKS

Novi Sad, Serbia | September 13–14, 2024 | HYBRID EVENT

**BOOK OF ABSTRACTS**



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**RETHINKING INDUSTRIAL  
ROUTES AND NETWORKS**

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# INTRODUCTION





Following the ongoing debates on the European cultural heritage foundation, the first TICCIH Serbia International Conference rethinks the role of industrial heritage in the challenges facing common historical, present, and future cultural values.

In the current year, we are marking the 70th anniversary of the European Cultural Convention, adopted to achieve a greater unity among the members of the European Commission to safeguard and realize the ideals and principles which are their common heritage. During the past decades, Europe has experienced a transformation of the social, political, and cultural milieu, which resulted in a critical review of the concept of common heritage in recent years.

In this context, the Conference will examine the dynamics of establishing and breaking links and relations between mutually intertwined histories and cultures.

Since 1985, the signatory states of the European Cultural Convention have been celebrating their common heritage within the European Heritage Days, a participatory cultural program initiated by the Council of Europe and the European Commission. Participatory events, organized every September, bring together experts and the public to explore and enjoy cultural heritage.

The first TICCIH Serbia Conference theoretically discusses this year's theme of the EHDs – Heritage of Routes, Networks and Connections – within heritage studies and cultural tourism. The conference aims

to review various aspects of industrial routes and networks grouped around three thematic sections.

Although industrial history can be considered a crucial segment of the European past, today, memories of that era are fading despite numerous industrial monuments across Europe. The first thematic section highlights the role of merging industrial historical elements, tangible and intangible, in the context of re-examining mutual memories and cultural values. In particular, it addresses historical routes, such as railways, roads, and canals, recalling their role in creating the European collective identity.

The second thematic section reviews the significance of various industrial heritage routes in the context of tourism. Contributions presenting the experience of sites that are part of the European Route of Industrial Heritage (ERIH), European Cultural Routes, and others are welcome. The focus will be on the role of industrial routes in sustainable tourism and local community development.

The third thematic section is dedicated to considering the role of digital technologies in transforming existing and developing new industrial routes. We are rethinking the role of digitization in increasing interactivity and participation. During the COVID-19 pandemic, demand for virtual access to heritage sites has reached unprecedented levels. New digital networks and virtual routes were formed. We welcome positive and negative examples and discussion on the topic.



# ORGANISATION



**Conference organisers**  
Cultural studies platform CULTstore  
TICCIH Serbia

**Organising Committee**

Anica Draganić, PhD  
Szilágyi Mária, PhD  
Vladimir Todorović, PhD  
Ivana Neškov Repić, MSc  
Jovan Bajić, MSc  
Lazar Tufegdžić

**Scientific Committee**

Anica Draganić, PhD, Serbia  
Miles Oglethorpe, PhD, United Kingdom  
Sonja Ifko, PhD, Slovenia  
Benjamin Fragner, PhD, Czech Republic  
Vladimír Hain, PhD, Slovakia  
Szilágyi Mária, PhD, Serbia

**Support**

Ministry of Culture, Republic of Serbia  
University of Novi Sad  
Faculty of Technical Sciences

**Venue**

Svilara Cultural Station  
Đorđa Rajkovića 6b  
Novi Sad

**Contact**

Cultural studies platform CULTstore  
cultstore100@gmail.com

## **Arrival**

**Bus 600** - from Belgrade Nikola Tesla Airport to Novi Belgrade Railway Station

**The Soko train** - from Novi Belgrade Railway Station to Novi Sad Railway Station

**Bus 4 or taxi** - from the station to the city centre where the proposed hotels are

## **Accommodation**

Hotel Veliki <https://hotelvelikinovisad.com/en/home/>

Hotel Putnik <https://hotelputnik.rs/index.php?lang=GBR>

Hotel Mediteraneo <https://hotelmediteraneo.rs/>

Hotel Fontana <https://restoranfontana.com/en/>

## **Sightseeing**

City centre <https://novisad.travel/en/city-centre/>

Petrovaradin fortress <https://novisad.travel/en/petrovaradin-fortress/>

Danube <https://novisad.travel/en/novi-sad-on-the-danube/>

Fruška Gora <https://novisad.travel/en/fruska-gora-2/>

**More attractions on** <https://novisad.travel/en/>





**PROGRAM**



## Friday, 13/09/2024

- 10:00-10:30    Opening remarks  
**Anica Draganić**, TICCIH Serbia and CULTstore  
**Ivana Neškov Repić**, Institute for the Protection of Cultural Monuments of the City of Novi Sad  
**Dušica Juribašić**, Cultural Heritage Sector of the Provincial Secretariat for Culture, Public Information and Relations with Religious Communities
- 10:30-12:30    Keynote speakers  
**Miles Oglethorpe**. The Value and Potential of Industrial Heritage Tourism  
**Ángeles Layuno Rosas**. On Networks and Routes of Industrial Heritage in Spain  
**Piotr Gerber**. Industrial heritage supports environmental protection
- 12:30-13:00    Coffee break
- 13:00-14:30    Industrial routes and tourism. Moderator Anica Draganić  
**Maciej Mądry**. VIA TEXTRINA. The Industrial Heritage of Lower Silesian Linen Weaving and Spinning Mills  
**Jovan Bajić**. The Sugar Refinery Palace of Rijeka  
**Szilagyi Maria**. Tourist Potential of the Banat Railway Heritage
- 14:30-15:30    Lunch
- 15:30-17:00    Tour of the industrial heritage of Novi Sad. Anica Draganić & Szilagyi Maria

## **Saturday, 14/09/2024**

- 10:00-12:00 Historical routes, memory and identity. Moderator Ivana Neškov Repić  
**AntonioI Francesco, Marini Roberto**. Highway design in the former Yugoslavia  
**Andela M. Dukić**. Towards Industrial Giants: Electronics Industry of Niš  
**Amira Talbi**. Connecting Algeria: The Railway Network's Influence on Economy, Culture, and Collective Identity  
**Maja Pličanić, Tijana Veljković**. Development of the Iron Industry Route in Bosnia and Herzegovina: From Extractive Beginnings to Digital Revitalization
- 12:00-12:30 Coffee break
- 12:30-14:00 Industrial routes in digital perspective. Moderator Szilagyi Maria  
**Vladimir Hain, Roman Hajtmanek, Dušan Kočlik**. Industrial Heritage and its Digital Restoration as an Educational Tool  
**Hercules Fasourakis**. Digitizing and Mapping the Industrial Heritage - Do it with VIDA  
**Anica Draganić**. Virtual Train Journey through Visegrad and Vojvodina Regions
- 14:00-14:30 Conclusions
- 14:30-15:30 Lunch
- 15:30 Exhibition opening. Piotr Gerber, Anica Draganić & Szilagyi Maria  
RAIL4V+V – Visegrad and Vojvodina Railway Heritage



## KEYNOTE SPEAKERS





# THE VALUE AND POTENTIAL OF INDUSTRIAL HERITAGE TOURISM

**Miles Oglethorpe**, PhD  
TICCIH President  
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**Abstract.** Industrial heritage tourism is not a new phenomenon, some of the earliest examples emerging in the late 18th Century. However, its potential and relevance began to be recognised on a significant scale in the late 20th and early 21st Centuries. This paper examines some early examples of industrial heritage tourism but reflects upon the fact that until the late 1990s, historic industries were often regarded with hostility by national tourism organisations. The view was that industrial heritage was more likely to repel than attract tourists.

In general, it is therefore pleasing to be able to report that this situation has been reversed, thanks in particular to the success of organisations like the European Route of Industrial Heritage (ERIH). However, prejudices remain in many places, not least because of the difficult environmental and social legacies left by declining and disappearing industries, and the problems experienced by their associated communities.

Some industries present more opportunities for tourism than others, but in recent decades, projects in several European countries have demonstrated that even the heritage of ‘impossible’ industries can

be adapted and made to work for the future of their communities.

Several types of industrial heritage lend themselves particularly well to tourism, including mining, metallurgy, textiles and ceramics, but some of the best embrace historic transport infrastructure, not least railways. This is important because, as the battle against climate change continues, finding sustainable, responsible ways of promoting access to this heritage is a priority.

**Keywords:** Tourism; Mining; Engineering; Transport; Communities

**Bio.** Miles Oglethorpe has been President of TICCIH since its 2018 congress in Chile. Until recently, he also served as Head of Industrial Heritage at Historic Scotland, the national body responsible for the built heritage in Scotland and its biggest tourism organisation. His specialisms have included UNESCO World Heritage and the heritage of energy, especially the coal industry.

# INDUSTRIAL HERITAGE SUPPORTS ENVIRONMENTAL PROTECTION

**Piotr Gerber**, PhD

Foundation for the Protection of Silesia Industrial Heritage, Poland, piotr.gerber@muzeatechniki.pl

**Abstract.** The protection of industrial heritage is an important task to consolidate knowledge about the processes that have occurred in the development of the human population as a result of the development of the so-called Industrial Revolution.

Skilful protection of material traces of industrial activity creates a space that provides opportunities for education in the development of technology. It is also a way of preserving local identities created as a result of industrial development. The preservation and further use of industrial facilities reduce the amount of greenhouse gases generated, including CO<sub>2</sub>. The protection and adaptation of technical monuments to new functions allows for a significant reduction in the amount of CO<sub>2</sub> produced compared to the construction of new similar facilities.

The presentation of projects for the development of

large historical industrial facilities implemented by the Foundation for the Protection of Silesia Industrial Heritage will show effective methods of preserving industrial facilities following the principles of reducing greenhouse gas emissions.

**Keywords:** Industrial heritage protection; Reduction CO<sub>2</sub>; Monuments conservation

**Bio.** Architect with expertise in the protection of industrial heritage. Long-time lecturer at the Wrocław University of Technology. Founder of the Foundation for the Protection of Silesia Industrial Heritage. His activities in the foundation include the rescue and reuse of several industrial facilities important to the economic history of Silesia and their adaptation into museums.



# ON NETWORKS AND ROUTES OF INDUSTRIAL HERITAGE IN SPAIN: THE REAL, THE VIRTUAL AND THE IMAGINARY

**Ángeles Layuno Rosas**, PhD

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**Abstract.** Given the tangible and intangible nature of industry, the concepts and methods of studying, conserving, and disseminating industrial heritage tend to be considered from scalar and territorial perspectives. Faced with a European scenario subjected for decades to progressive processes of de-industrialization, the interpretation developed within the ICOMOS Charter on Cultural Routes (2008) also reflects a more comprehensive approach to cultural heritage. This approach is materialised in the relevant contribution of the European Route of Industrial Heritage (ERIH), which generates a dynamic and decentralised transnational constellation of assets related to European industrial heritage.

Reflections on the epistemological essence of the concept of network, route or itinerary are raised, considering their legal-administrative, scientific, design and interpretative levels, as well as social and economic issues. One of the questions revolves around the re-signification of a territory through its tertiarization. Secondly, the implications of these routes for the local community, as opposed to being merely a tourist product, are examined.

The concept of re-remembering (Mistzal, 2003), which posits that the past is an open field where lost

memories can be rescued at any time to address present needs, is highly relevant to the case of industrial heritage. This is particularly true as the industrial era remains recent, with memories still alive in the communities involved, where it is taking place a cohabitation of former workers, new generations looking for another identity, and external agents looking at the landscape according to their values. The review of recent Spanish experience focuses on the operation of several networks, routes and itineraries of industrial tourism, considering their virtual and physical accessibility. Termed “invisible routes”, the divergences between the two situations are analysed, with a commitment to a policy of good practices.

**Keywords:** Networks; Routes; Industrial heritage; landscape; Spain

**Bio.** PhD in Art History, Tenured Associate Professor at the University of Alcalá School of Architecture. Coordinates the research group “Architecture, History, City and Landscape”. One of the research lines from the last years is focused on criteria and methodology of conservation of the architectural, urban and territorial industrial heritage.



# **HISTORICAL ROUTES, MEMORY, AND IDENTITY**





# HIGHWAY DESIGN IN THE FORMER YUGOSLAVIA

**Antoniol Francesco**, MSc; **Marini Roberto**, MSc

Studio Associato Virginia, Fondazione ing Lino Gentilini, Italy  
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**Abstract.** The contribution, after a historical and contextual introduction on the producers and custodians of the documentation under analysis, intends to explore the planning story relating to, among others, the Zagreb-Split, the Zagreb-Belgrade and the Sarajevo-Mostar-Adriatic Sea motorways, developed by the SEPI design studio of Trento, a heritage now preserved by the Fondazione Ing. Lino Gentilini. In addition to this, attention will be paid to the collaboration with the Viadukt company and to the construction of its factory, specialized in reinforced concrete structures, in Pojatno.

If many remains of the design story, very little remains preserved, in the archive, with respect to the executive phase of the works and the definitive use of the structures. One of the desirable outcomes, the first, of the contribution is expected to be the opening of a debate and a research path that investigates these aspects, which are quite obscure for us.

The second, currently being perfected, is the establishment, also in view of the TICCIH conference in

Kiruna 2025, of a working group that investigates the development of the European International Road Network with a view to a systematic multi-disciplinary investigation: archival and historical, engineering and structural, geographical, social and economic. We will therefore try to give an account of the development of this project by welcoming all those who wish to contribute.

**Keywords:** Engineering; Highway; Structures; Concrete; Archives

**Bios.** Archivists and historians specializing in modern and contemporary studies, with a particular focus on industry and business. In 2009, they founded the Virginia Associated Studio, based in Trento, where they refine and deepen their work, not only in describing historical complexes but also in current document management. Members of the scientific committee of the Fondazione ing. Lino Gentilini.

# TOWARDS INDUSTRIAL GIANTS: ELECTRONICS INDUSTRY OF NIŠ

**Andela M. Dukić**, MSc

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**Abstract.** During its decades of existence, the Electronics industry of Niš (Ei Niš) represented one of the main carriers of economic income in Yugoslavia. Owing to the successful activities in the fields of production and distribution, there was an active need for its architectural and urban expansion and further development. The planned construction of the complex began in 1948, but despite clear development stages that can be mapped up to the 1990s, partial formal and functional modifications of the former matrix are ubiquitous in modern times. The paper focuses on presenting the architectural and urban development of the Electronics industry complex in Niš. In addition to the analysis of the planned organization of the space and interconnection of the built units as a whole, the focus will be placed on the calculated development of the infrastructure within the complex. The relationship between the found historical paths and their successive incorporation into the wider space of the industry with the newly created internal networks will be discussed. After the Second World War, industrial complexes consisting of numerous factory halls and individual buildings were

most often developed outside cities on empty spaces where there was no previous constructional tradition. Accordingly, the urban relationship between the Electronics industry complex in Niš and the archaeological site of Mediana, with which it corresponds directly spatially, will also be considered. Finally, the sustainability of industrial architecture and untimely valorization will be considered in the context of the perception and protection of industrial heritage.

**Keywords:** Electronics industry of Niš; Architecture; Urbanism; Industrial heritage; Infrastructure

**Bio.** Andela M. Dukić (1997) is a PhD candidate of the Department of History of Art at the University of Belgrade – Faculty of Philosophy under the mentorship of Professor Aleksandar Kadijević. Her field of study consists of architectural-urban heritage (19th – 21st century). She's a member-associate of Matica Srpska and the author of several scientific papers.

# CONNECTING ALGERIA: THE RAILWAY NETWORK'S INFLUENCE ON ECONOMY, CULTURE, AND COLLECTIVE IDENTITY

**Amira Talbi**, MSc

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**Abstract.** The Algerian railway network, established during the colonial era, has played a pivotal role in shaping the country's socio-economic landscape. This scientific communication proposes to explore the multifaceted impact of the Algerian railway system on the nation's economy, cultural values, and collective memory.

The railway system has not only been a conduit for economic activities, enabling the efficient transportation of goods and people, but has also been instrumental in the dissemination of cultural values across diverse regions. The connectivity provided by the railways has allowed for a richer exchange of ideas, traditions, and practices, thus reinforcing a sense of unity and mutual understanding among the Algerian populace. Furthermore, the railways have embedded themselves in the collective memory of the nation, serving as symbols of progress and resilience.

This study will delve into these historical contexts, highlighting how the railways have become intertwined with the collective memories and identities of Algerian communities. Through an interdisciplinary approach that combines economic analysis, cultural studies, and historical research, this communication

seeks to provide a comprehensive understanding of the enduring legacy of the Algerian railway system. It will demonstrate how the merging of railways has not only driven economic development but also fostered cultural cohesion and mutual memories, ultimately contributing to the nation's holistic growth and identity formation.

In conclusion, this study underscores the significance of the Algerian railways as a transformative force in the nation's history, emphasizing their role in economic integration, cultural value transmission, and the construction of shared collective memory.

**Keywords:** Algerian railway network; Socio-economic impact; Cultural values; Collective memory; National identity

**Bio.** PhD student at the University of Biskra, a TIC-CIH member, and an assistant teacher at the University of Sétif, Algeria. Her research focuses on the conservation of 19th and 20th-century architectural and urban industrial heritage. She has collaborated internationally, including at Politecnico di Milano and the University of Pisa.

# DEVELOPMENT OF THE IRON INDUSTRY ROUTE IN BOSNIA AND HERZEGOVINA: FROM EXTRACTIVE BEGINNINGS TO DIGITAL REVITALIZATION

**Maja Pličanić**, PhD

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**Tijana Veljković**, PhD

recognized researcher, tijana.veljkovic.msgsu@gmail.com

**Abstract.** This paper examines the industrial development of Bosnia and Herzegovina, emphasizing the role of extractive industries, particularly mining and the iron industry, which laid the foundations for the country's further industrial advancement. It focuses on the historical and economic factors influencing the growth of industrial centers such as Ilijaš, Vareš, Visoko, and Zenica.

The establishment of the Zenica Steelworks in 1948 marked Bosnia and Herzegovina as a significant regional player in the black metallurgy of Southeast Europe. Continued modernization and industry expansion in subsequent decades further cemented its status as a metallurgical hub in the Balkans.

With the decline of core industrial activities like iron processing, cities such as Ilijaš, Vareš, and Zenica face challenges in preserving their cultural and industrial heritage. The creation of an industrial heritage network along the "iron route" allows for the revitalization and reinterpretation of these cities' industrial past. Through tourism, education, and the cultural industry, these cities can leverage their in-

dustrial potential for future development. The digitalization of important heritage resources is crucial for preserving and promoting industrial memory as an integral part of European identity in the 21st century.

**Keywords:** Extractive industries; Iron route; Bosnia and Herzegovina

**Bios.** Maja Pličanić is a researcher in the field of cultural heritage with a focus on industrial heritage. In 2021, she was assigned the position of Assistant Professor at the Faculty of Educational Sciences for the scientific field of Cultural Heritage. She has been a permanent member of the ICOMOS and TICCIH. Tijana Veljković is an architect, currently based in Zagreb. She worked at the Institute for Protection and Use of Cultural, Historical, and Natural Heritage of Tuzla Canton until 2014. She obtained her PhD from the Mimar Sinan Fine Arts University in Istanbul in 2022, focusing on the integrated protection of industrial heritage. She worked on various restoration projects in Turkey.







# **INDUSTRIAL ROUTES AND TOURISM**





# VIA TEXTRINA. THE INDUSTRIAL HERITAGE OF LOWER SILESIA LINEN WEAVING AND SPINNING MILLS

**Maciej Mądry**, MSc

The Foundation for the Preservation of the Industrial Heritage of Silesia, Poland  
maciej.madry@muzeatechniki.pl

**Abstract.** The presentation will focus on the project titled Via Textrina, implemented in 2024 as part of the scholarship from the Minister of Culture and National Heritage. This project is a compendium of knowledge in the form of a free, publicly accessible website that will synthetically present the history and achievements of Lower Silesian weavers, whose work formed the basis of the Sudeten economy for over 500 years, based on historical and contemporary materials. The linen industry-initiated industrialization processes in the first half of the 19th century, leading to the development of mining, the machinery industry, and railways in Lower Silesia. An equivalent element of the project is the creation of a hiking trail following the most important textile factories in the Sudetic Mountains. Via Textrina focuses on seven multi-department linen textile factories located along a 170 km stretch in the Sudeten range.

The factories covered by the project are located in Mirsk, Mysłakowice, Kamienna Góra, Świebodzice, Wałbrzych, Walim, and Oldrzychowice Kłodzkie. All these factories have ceased operations and, in most cases, no longer exist, making the developed website and trail the only forms of commemorating their existence.

**Keywords:** Linen; Textile; Industry; Tourism; Trail

**Bio.** Director of the Zinc Rolling Mill Museum in Katowice, graduate of the Faculty of Social Sciences at the University of Wrocław, and doctoral candidate at the Institute for the History of Science of the Polish Academy of Sciences. Scholar of the Polish Minister of Culture and National Heritage in 2016 and 2024.

## THE SUGAR REFINERY PALACE OF RIJEKA

**Jovan Bajić**, MSc

Society of Architects of Vojvodina, Serbia

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**Abstract.** Established in 1752 by Dutch company "Arnold & Co.", the Sugar Refinery Palace had immense influence on the city's industrialisation and further development. Built on Mlaka, a part of the city that used to harbour cargo ships to unload raw sugar right in front of the refinery's gate. This way, the refinery put Rijeka in the European and global context of connecting other cities such as Vienna, Budapest, Antwerp and New York. After the fire in 1785, the refinery was fully restored and equipped with baroque interiors even though it stopped production in 1826. However, the building soon found its new purposes over the years, such as military barriers for the Hungarian army, a tobacco factory and company "Engines and Tractors Rikard Benčić". It is the largest Baroque building on the eastern coast of the Adriatic, and in 1970 the factory became a protected asset of cultural heritage. During the late 2000s, works on the restoration and conservation of the factory began. Recognised as a key element of Rijeka development, the Ministry of Regional Development and EU funded this project which includes

the creation of a new cultural-tourist route, as well as scientific educational and promotional activities that promote the project and sensitize the general public to cultural heritage. Over time, the Sugar Refinery Palace made its way to the ERIH map as one of the most significant industrial routes in Croatia. Today, the factory houses Rijeka City Museum while the rest of the industrial block is transformed into an art district, and that way enhances local community development.

**Keywords:** Refinery; Sugar; Development; Heritage; Rijeka

**Bio.** Jovan Bajić was born in 1999 in Subotica, Serbia. In 2018, he enrolled Architecture and Urbanism program at the Faculty of Technical Sciences in Novi Sad and finished his masters in September of 2023. He is currently working as an intern in an architectural studio in Rijeka.

# BANAT RAILWAY HERITAGE FROM THE PERSPECTIVE OF TOURISM

**Szilagyi Maria**, PhD

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**Abstract.** Railway tourism is becoming increasingly popular worldwide, appealing to people of all ages. Travelling by train offers a unique experience that can be enjoyed by both young and old. But what happens when we have almost no remaining physical evidence of former railway lines and only a few railway facilities left as reminders of the past? Can we revive the former railway lines, even if we can't preserve the original infrastructure? Is there potential for tourism to celebrate the memory of these railway lines, and will it attract the broader public? This paper aims to explore the possibility of reviving a discontinued railway line for tourism purposes - the Banat narrow-gauge railway, which operated from 1898 to 1968 before the tracks were dismantled and the buildings were abandoned, demolished, or repurposed. The paper investigates the tourist potential of the Banat narrow-gauge railway using historical methods and SWOT analysis. The

research goal is to explore different approaches to repurposing the former railway line to create a model for reviving railway heritage.

**Keywords:** Narrow-gauge railway; Heritage; Tourism; Banat

**Bio.** Szilagyi Maria is an architectural historian and conservator. Currently serves as an Assistant Professor at the University of Novi Sad, Serbia. She is focused on rural architectural heritage, with particular emphasis on its contemporary potential. Vice president of Cultural studies platform CULTstore and member of the TICCIH. Author of numerous articles published in journals, monographs and conference proceedings, on diverse Central European cultural heritage topics.





# INDUSTRIAL ROUTES IN DIGITAL PERSPECTIVE





# INDUSTRIAL HERITAGE AND ITS DIGITAL RESTORATION AS AN EDUCATIONAL TOOL

**Vladimír Hain**, PhD; **Roman Hajtmanek**, PhD; **Dušan Kočlik**, ArtD  
Slovak University of Technology Faculty of Architecture and Design, Bratislava, Slovakia  
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**Abstract.** The article presents the results of the applied interdisciplinary research projects KEGA realized at the FAD STU. It presents variable possibilities for using modern interactive equipment such as Virtual reality (VR) and Mixed reality (MR) in formal and non-formal education. In combination with the identified conserved valuable part of the building, preserved original equipment and archival plans, it was possible to reconstruct several valuable interiors as well as the interior of the industrial monument of Old Powerplant in the city of Piešťany. This practical result – an interactive virtual tool - allows us to educate students and general public about the heritage that does not exist anymore and should not be forgotten. Using original methodology of digital modelling of historical documents in this way allows the viewer to look closer defunct parts of the industrial heritage and to experience the former atmosphere of the industrial work.

The advantage of these technologies is in the recorded objects which are transferred to the virtual environment as 3D models with which architects can use. Objects can be virtually moved, animated and added, which brings gamification to the educational process of architects and visitors. It was confirmed that the result is beneficial also for the education of younger years of

secondary school students as well as for the informal continuing education of older architects and seniors within the university of the third age and in the framework focused on the protection of local industrial routes in digital perspective.

**Keywords:** Digital restoration; VR; Industrial heritage; Continuing education; Gamification

**Bios.** Vladimír Hain has been devoted to digital technologies in the presentation of industrial monuments since his doctoral studies in the field of Architecture and restoration of monuments. Works as in the vertical studio Data[LAB]. The guarantor of the subject Architecture and Mixed Reality. Cooperates with the Design factory N.G.O. Roman Hajtmanek received PhD from the Faculty of Architecture and Design, Slovak University of Technology. Currently, he is a researcher focused on experimental applications of virtual reality and machine learning.

Dušan Kočlik received the ArtD degree from the FA STU. Furniture designer, interior designer, teacher, publicist, activist, and exhibition curator. Leader of an independent interior and furniture design studio. Head of the Institute of Interior Design and Exhibitions at the FAD STU.

# **DIGITIZING AND MAPPING THE INDUSTRIAL HERITAGE - DO IT WITH VIDA**

**Hercules Fasourakis**, Chemical engineer  
V.I.D.A. Vault of Industrial Digital Archives  
vidaomada@gmail.com

**Abstract.** The Civil Non-Profit Organization V.I.D.A. (Vault of Industrial Digital Archives) began as a collaborative interdisciplinary effort aimed at preserving Greek industrial heritage. Its main goals are to study, rescue, protect, highlight, and promote Greek industrial culture and its heritage in both tangible and intangible forms.

In this context, the recording of industrial heritage was initiated and proved particularly fruitful during the pandemic. This period facilitated the organization and classification of industrial monuments on a dedicated website. The VIDA team envisioned this platform and its accompanying interactive map with free public access, aiding in the identification of industrial buildings and their equipment, historical data, and related documents. Each entry on the website provides comprehensive information.

This challenging project was carried out with our resources and the support of private individuals who valued our efforts, without any participation from state agencies. This initiative has benefited students

and researchers and, most importantly, has raised public awareness about the significance of industrial heritage in Greece and its contribution to the country's economic development.

Guided by the belief in "strength in unity," we propose cooperation among Balkan countries for a collective effort to map, preserve, and highlight the industrial heritage of the Balkan peninsula, which shares common geopolitical characteristics.

**Keywords:** Heritage; Digital; Balkan; Archives; Map

**Bio.** Chemical engineer. Executive of technical products manufacturing companies for 25 years, he founded a commercial company for the import and distribution of packaging materials. His interest in photography, as well as in the promotion and protection of abandoned industries, pushed him to establish the industrial heritage recording team of Greece, V.I.D.A.

# VIRTUAL TRAIN JOURNEY THROUGH VISEGRAD AND VOJVODINA REGIONS

**Anica Draganic**, PhD

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**Abstract.** In line with the aim of the European Year of Rail (2021) to encourage and support the efforts of the European Union in promoting rail from different points of view, the main goal of the project RAIL4V+V was to raise awareness about the railway heritage value and importance in the diversification of tourism offer in Visegrad and Vojvodina regions. RAIL4V+V aimed to identify and promote railway heritage for sustainable tourism development. We employed creativity and digital skills as crucial players in the innovation of cultural heritage tourism. It contributed to raising awareness of the role of railways in V4 sustainable tourism through unique branding and presentation of railway heritage in situ and on a digital platform.

Combining innovative methodologies, processes, methods and devices to enhance the understanding of railway heritage through digitization brought new knowledge, collaboration across disciplines, efficiency in developing and using digital models, and

social benefits. The paper will present the crucial project's outcome – the virtual railway route, created by new digital interactive solutions and on quality content and balance based on tourists' needs and desires.

**Keywords:** Railway heritage; Digitization; Virtual route; Visegrad countries; Vojvodina

**Bio.** Anica Draganic is an architectural historian and conservator. Currently serves as an Associate Professor at the University of Novi Sad, Serbia. She is focused on modern architectural heritage, with particular emphasis on industrial heritage and its contemporary potential. President of TICCIH Serbia and Cultural studies platform CULTstore. Author of numerous articles published in journals, monographs and conference proceedings, on diverse Central European cultural heritage topics.



Organiser



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