Many thanks to James Douet for editing the first 100 numbers of the TICCIH Bulletin!
MESSAGE FROM YOUR PRESIDENT

IN PRAISE OF BEING AWKWARD

Miles Oglethorpe, TICCIH President

Welcome to the 100th TICCIH Bulletin, and congratulations to James Douet, our editor, who has overseen the amazing transformation from hard copy to digital, and from a limited circulation to a global audience. It is extraordinary to think that James put together all 100 issues, following on from a hand-produced TICCIH newsletter created by Barrie Trinder. It was in fact Eusebi Casanelles’s initiative that created the Bulletin, in the process commencing the vital process of sending out a regular publication to all TICCIH members, and at this time it was his museum in Catalunya who carried the cost while he was president. Pat Martin subsequently modernised production with support from Michigan Technological University when he took over the presidency, further enhancing its quality and reliability.

So, now that James is stepping down, it’s wonderful to be able to welcome Joeri Januarius to this vital role, and I am also delighted to be able to thank the Industriemuseum in Gent for generously offering to be the Bulletin’s new home and provide invaluable support for Joeri much as Eusebi did for James many years ago.

This special edition has caused me to reflect on how far we have come, bearing in mind that in the next couple of years TICCIH will be celebrating its own ‘half-century’. I first entered the world of industrial heritage in 1982 when TICCIH was less than a decade old. Like many people in our field, I was a ‘mutant geographer’ trying to finish my PhD at Glasgow University. I took a part-time job with the Scottish Industrial Archaeology Survey (SIAS) unit in Strathclyde...
University. Founded a few years previously by Professor John Hume, SIAS was created because no one seemed to be interested in the cataclysmic change overwhelming Scotland's historic industries. All the resources that were allocated to our historic environment were funnelled towards sites that had already disappeared (we rudely referred to ‘lumps and bumps’) or castles, cathedrals and what was considered to be ‘worthy’ architecture. No one bothered about the industrial heritage, even though there was recognition that Scotland’s most significant impact on the world had been industrial.

By 1985, SIAS was deemed to be such a success that it was transferred to the national heritage recording organisation, the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) in Edinburgh.

Though we were working with ‘two Geoffs’ (Geoffrey Hay and Geoffrey Stell), who went on to publish the outstanding book Monuments of Industry, there had never been a recognisable Industrial Heritage team within the organisation, and we were regarded as a temporary anomaly. There we remained until RCAHMS merged with the national heritage body, Historic Scotland, to become HES (Historic Environment Scotland) in 2015. Eight years on, there is still an Industrial Heritage team in HES, even after a recent reshaping exercise, so we have survived despite the wider institutional scene around us undergoing seismic change.

The reason for these reflections is they are helping me look towards the future. Industrial heritage poses all sorts of challenges, but many of these present opportunities. The natural tendency of established heritage interests is to try not to think about our industrial past and, where possible, to clear it away. This is perceived to be an easy solution, especially so in the current Climate Crisis where blame is the dominant currency.
MESSAGE FROM YOUR PRESIDENT

To survive this long we have had to be awkward, but in a constructive way. Our awkward needs to be subtle and persuasive, which means we have to work harder, gently making our case and demonstrating the value that industrial heritage can deliver. We haven’t done as much as we would have liked to with this strategy, but we are still here!

This is why the Bulletin is so important. It is where we can showcase the great successes, analyse the failures and dip into the texture of what’s happening at a global scale. In many ways, it is a testament to awkwardness - to people not caving into pressure, standing up for causes, and sometimes doing remarkable things against the odds. There is no other regular publication that does this, and it is only available to individual members. For this reason, I urge you to send in articles of your work and interests or concerns, and to encourage others to do the same.

Finally, please do one more vitally important thing – if you are not a paid-up member, please join TICCIH International and become visible through our Membership Directory. We are modernising and a vital part of that process is individual membership. It’s essential that we know who you are and that you have the chance to network and share your stories and expertise. Keep fighting the fight!

Dr Oglethorpe is Head of Industrial Heritage at Historic Environment Scotland and has been President of TICCIH since 2018

OPINION

TIME TO UPDATE THE NIZHNY TAGIL CHARTER!

Dr. Iain Stuart, Artefact Heritage, JCIS Consultants

Charters are quite popular in heritage – we have the Venice Charter (1964) which built on the Athens Charter of 1931. There is the Florence Charter (1981) for historical gardens, the Washington Charter (1987) for Historic Towns and Urban areas and so on. Australia ICOMOS has its own Burra Charter which dates from 1979 and was last updated in 2013. TICCIH has in effect two charters; the Nizhny Tagil Charter (2002) and the later Dublin Principals of 2011 which are jointly held by TICCIH and ICOMOS.

The background to the Nizhny Tagil Charter was the need for the field of Industrial Heritage to have its own defining documentation given that there was confusion around the terminology and little in the way of an established academic focus to provide the theoretical foundation which would locate it within the cultural heritage field.

TICCIH President Eusebi Casanelles initiated the process of the Charter1 and asked James Douet to prepare a working draft, for which he drew on The Historic Scotland Guide to International Charters (1997). It was reviewed by the TICCIH Board and was sent out to national representatives for comment before the TICCIH Congress in 2002. A final text was ready in time for the conference at Nizhny Tagil in Russia which is where it was ratified by the participants.

The Charter has a particular form of discourse. There is usually an inspiring preamble that sets out the scope of the topic or issue that the Charter is to address, followed by a set of definitions of topics or issues. Finally, there are a set of articles or points that persons signing the charter agree upon. Typically, charters are short and are to some extent summaries of larger topics. Often there are supplementary documents and information associated with a Charter. The Burra Charter for example, has a useful flowchart showing the steps in planning for and managing a place of cultural significance and has a set associated guideline.

The background to the Nizhny Tagil Charter was the need for the field of Industrial Heritage to have its own defining documentation given that there was confusion around the terminology and little in the way of an established academic focus to provide the theoretical foundation which would locate it within the cultural heritage field.

There is a curious reference in the Charter having to be sent off to ICOMOS to be ratified which seems odd as TICCIH surely didn’t need ICOMOS approval for its work. I think this may have been the start of the process leading to the ICOMOS TICCIH Dublin Principals of 2011, or knowing the ICOMOS bureaucracy the ratification may still be in process.

The TICCIH Board has recognised that the Nizhny Tagil needs a re-vamp to consider some of the criticisms of the document as well as changes to modern heritage practice. A commission of board members has been convened to discuss whether the charter is fit for practice or whether it needs a rewrite and what form that rewrite might be. The process will be one where the commission discusses the key issues and will issue a draft and accompanying discussion paper for comment from TICCIH members and then the matter will be fought out at the next congress. A particular challenge will be how the concepts of the charter will be expressed in different languages and the different cultural contexts of heritage practice.

However, the aim and purpose of the charter will still remain, to define and inspire the protection of industrial heritage.

Some issues to consider

The following section is the author’s personal view of some key issues to consider rather than that of the Commission, who I know may have a different spin on things.

Defining the field of interest – our industrial heritage has been discussed in the TICCIH Bulletin and in Industrial Heritage Retooled. The Nizhny Tagil charter anchors principal period of interest as extending forward in time from the beginning of the Industrial Revolution and this has always seemed at odds with the actual practice of industrial heritage worldwide. Casanelles has discussed this decision and noted that there was dissent at the time of formulating the charter but concluded that “The TICCIH charter wanted to make clear that the material goods that formed our industrial heritage were from the transformation which began in the second half of the eighteenth century with the introduction of a specific method of production that historians have called the factory system”.

But practice seems to suggest that this is not quite true. The World Heritage nomination for the Erzgebirge/Krušnohoří Mining Region starts with the mid-13th century and nobody considered the cultural remains not industrial heritage because of their age or because of the non-use of the factory system. A colleague of mine, Dr Tamar Lewit, has studied Roman era oil presses and the development of oil press technology using historical and archaeological evidence which would seem to be a classic industrial heritage study of technology and industry, yet the time period is well before the “Industrial Revolution”. There are clearly many such cases.

In my view, assigning the definition of industrial heritage to a specific date or even era creates unnecessary issues with definition - al boundaries. I think TICCIH should look at mode of production, scale and networks as key defining points as to what is industrial or not. Or perhaps the paragraph defining the historical period of principal interest could be removed.

Following on from the chronological definition of industrial heritage should be its scope. In TICCIH Bulletin 85 I noted the critique that industrial heritage often seemed too Whiggish, the uncritical celebration of the progress of industrialisation. In particular, this is often shown in the tidying up of surviving fabric and its incorporation into an interpretive analysis that glosses over other aspects of industrialisation such as industrial diseases, pollution, dispossession of the original inhabitants and so on.

The scope of industrial heritage therefore needs to encompass a broad understanding of the impacts of the industrial process so that the evidence can be properly incorporated in the understanding of industrial heritage. For example, in the famous goldfields of Victoria some mining sites were identified as industrial heritage, and notably the mining town of Maldon was listed. But in recent years the Rivers of Gold project has transformed the understanding of the environmental impact of gold mining leading to the consideration that the sludge deposited downstream from the mines is as much our industrial heritage as the mining infrastructure. I am sure that this is not the only case of this type.

The preamble to the charter should make the broad scope of industrial heritage abundantly clear without discouraging interest in the topic.

Finally, I note the Charter’s emphasis on fabric and objects. This is understandable because in practice we are listing and managing tangible things. But what of intangible things such as know-how, and what of the documentary evidence? It seems ridiculous to focus solely on fabric and ignore any other form of evidence such as tradition, maps, technical documents, company records and so on. I don’t think there can be much dispute on this point and all that is required is a border definition of the scope of industrial heritage.

To conclude, the first task of the Commission will be the difficult one of addressing the nature and scope of industrial heritage. My view is that the definitions in the Nizhny Tagil charter need clarification and enlargement. I am sure that there will be considerable discussion on the wording of the definitions in the next few months and that TICCIH will welcome different views on these topics.

Dr Stuart is a long-term TICCIH Board member with a background in industrial archaeology. He is currently the President of the Royal Australian Historical Society.

Contact
A DATABASE TO SAFEGUARD INDUSTRIAL HERITAGE

Dr. Joeri Januarius and Bart Vanacker

This year, ETWIE’s knowledge database celebrates its tenth anniversary. The Flemish Center for Industrial Heritage developed this digital platform in 2013 as a way of safeguarding as much information on industrial heritage as possible.

The database contains almost 2,000 pages with specific information on people, institutions, and organisations that have (museums and archives), can (experts), or know (researchers) something related to industrial heritage. These pages are linked to one of the 180 themes, more than 300 municipalities in Flanders, and almost 9,000 bibliographic references.

The database is more than a pile of pages and articles. It is also an important tool for safeguarding industrial heritage and connecting people interested in industrial heritage. In fact, through the ETWIE database, you can find who has something and who knows something by topic. In this way, we want to gather data on collections, sites, and researchers, and share it as much as possible with the heritage field.

Let’s explore an example. The heritage of the chemical industry is a very interesting but understudied field in heritage research. In 2021, ETWIE started an extensive research project on the history and heritage of fertilizers, one of the most important branches of the chemical industry in Belgium during the 20th century. Besides an online publication, we collected all the relevant information in an easily accessible page in our database, providing content on the history and the heritage of fertilizers, giving an overview of relevant museums and sites, and researchers.

An important added value of the knowledge base is the extensive bibliography included from the start. The current bibliography in the database is a continuation of the bibliography compiled in 1991 by Patrick Viaene and Peter Scholliers in the journal TIC (Tijdschrift voor Industriële Cultuur, the Flemish Journal for Industrial Culture) and edited by the Museum of Industry in Ghent. By joining forces with...
the museum, the already existing bibliography of industrial heritage could be integrated into our database in 2013.

This extensive bibliography is regularly updated with new publications from journals, magazines, websites and books. Where possible, digital versions of the publications are also offered. The result is a bibliography that has grown to 9,000 titles.

We transferred the database to a new digital platform in 2021. ETWIE devoted a lot of time and energy cleaning up the data. This is an important task because the data quality obviously determines the quality of the content of the database.

Through the new platform, the database was expanded to include a participatory component called MyEtwie. The old system behind the database was only accessible to the team. Through a simple process, a new user of our database can become the owner of his or her own page, adding information, publications, and photos. A private collector of engines can add photos of his collection, a researcher can add his new publications to the Bibliography et cetera.

Future of the database

Our website has every year approximately 65,000 unique visitors. The database is the best-viewed part of the ETWIE website with more than 85,000 unique page views per year. Besides adding new research to the database, it is our goal to develop the database into a multilingual platform (French, Spanish, and English). This way, we want to increase the range of our digital platform. In the meantime, if you are interested in our industrial heritage, you can use google translate or other tools to access our platform.
THE EYE OF PROVIDENCE, BELGIAN STEEL IN GLASGOW

Mark Watson, Historic Environment Scotland

The TICCIH Bulletin is an excellent means of sharing information and ideas about industrial heritage internationally, so I will offer a short essay that illuminates connectivity between the UK and Belgium. It was prompted by my attendance at a former railway works in Glasgow Scotland, and recognition that it contains steel from LesForges de la Providence in la Marchienne-au-Pont in Belgium, today the Arcelor Mittal steelworks.

I was inside the St Rollox railway works in Springburn with colleagues recording the railway carriage shops, which became a listed building in 2022. Most bays have light lattice girders alternately supporting the roofs, a type of girder made of L-shaped angle irons and flat bar cross pieces, not seen in other engineering works in the UK, too weak to carry very much, but which I have seen in France, Germany and Belgium in weaving sheds as well as engineering shops. They could be wrought-iron or steel, and might have been imported in pieces for assembly in Scotland, at both the demolished Cowlairs Works and the partly surviving St Rollox Works (half of the site now has a supermarket).

Taller bays originally for locomotive assembly have steel girders to carry travelling cranes, which along with the roofs are supported by cylindrical cast-iron columns. I could just make out the upside down rolled mark “La Providence Belge” and a flat isosceles triangle containing something. Travelling cranes for erecting engines in the city had run on timber beams, several compounded on top of each other in the 1850s-1870s, which gave way to some rare attempts in
cast iron and a few in wrought iron, but most have been replaced in steel because only steel had the necessary tensile strength. As rebuilt in 1882, this railway works marks the transition to steel, but retained a local preference for cast iron in compression for the vertical columns, and triangulated wrought iron in tension for the roof trusses.

The Bessemer process didn’t suit Scottish ores and was unreliable, so had no impact on the history of steel in construction in Scotland. The Steel Company of Scotland was formed in 1873, using Siemens-Martin furnaces, and its output was primarily for use in shipyards, and for railway rails. From the mid-1880s it was contracted to supply the steel for the Forth Bridge, which by 1889 was tempted to seek cheaper steel from Wales. But rolled steel used in constructing buildings was demonstrably not a part of the Scottish industry until the later 1880s. Two buildings in Glasgow built in 1873 probably contain steel elements (the Briggait Fish Market and the Western Baths, both with Clarke and Bell as architects) and some filler joist floors of the 1870s and 1880s contain steel joists, perhaps among the foreign imports, Belgian and German, that were criticised in the British architectural press. But sizable rolled steel elements were absent until 1889 (e.g. Ferguslie and Anchor cotton mills, Paisley) and the first properly steel-framed Scottish building, with vertical steel stanchions to which cross girders are bolted, was probably the Scotsman Printing Works, now a hotel, in 1902, according to research by Andrew Jackson.

Les Forges de la Providence were founded in 1838 by English and Belgian partners. In 1849 Alphonse Halbou, Director in that firm, patented rolled beams so it seems that British construction engineers went to the source of these in Belgium rather than wait for British producers to catch up. But what was that triangle? I consulted Patrick Viaene, Belgian correspondent of great renown in TICCIH. He confirmed to me that the eye in a flat triangle, of masonic origins, had been adopted as a company trademark and stood at the entrance.

Les Forges de la Providence created a subsidiary in Mariupol, Ukraine in 1898 but withdrew due to losses in 1902. Recently steel production in Marchienne-au-Pont was intended to be carried out in co-operation with a Russian firm, but the blast furnace was stopped in the 2008 financial crisis, just after it was reconditioned. But many of the beams it produced will live on in the buildings across Europe that contain them.
Bromley-by-Bow Gasholders, London. Discussions are underway on the redevelopment of this site, which includes seven Grade II listed gasholders — the largest surviving group in the world. Six are to provide accommodation within the frame, with the intention to retain both the tank and bell of Gasholder Four (Historic England Archive, Chris Redgrave).

HISTORIC ENGLAND’S INDUSTRIAL HERITAGE STRATEGY

Shane Gould, Head Of Industrial Heritage Strategy, Historic England

In March 2021 Historic England undertook a consultation on its recently completed draft strategy for industrial heritage. Historic England is a non-departmental public body of the UK Government and the draft Strategy covers England only. In most cases, the consultation responses were very positive, and accompanied by offers of help in its delivery and these are now being carefully considered before the Strategy is finalised.

For ease of handling and to make it manageable, the draft Strategy has been divided into four themes and nine issues. The four themes cover (i) extractive industries, (ii) processing and manufacture, (iii) public utilities and telecommunications, and (iv) transport. The supporting nine issues include (i) protection, (ii) planning and conservation, (iii) sustainable reuse, (iv) charitable trusts and social enterprises, (v) industrial sites preserved as heritage attractions, (vi) industrial heritage at risk, (vii) knowledge and skills, (viii) research, and (ix) engagement, participation and promotion. It focuses on the
Temple Mill, Leeds was constructed in 1840 as one of the first large-scale single-storey factories. The Mill is being considered as the new home for the British Library in the North of England (Historic England).

period 1750 to date with an emphasis from the ‘Industrial Revolution’ to the onset of World War I, but this acts as a general framework only.

Each issue and theme includes a vision statement, an outline of its scope and current challenges, followed by a list of priority activities to be delivered by Historic England, often in partnership with others. In some cases, discussions have already been held with key stakeholders and delivery is underway, for others discussions are taking place, whereas some activities have yet to begin. Given its scope, scale, ambition and the finite resources within Historic England, partnership working will be key to the Strategy’s success.

What follows is a brief description of some of the work currently underway:

Planning and Conservation

Historic England is seeking to mainstream existing good practice in the way industrial sites are dealt with in the planning process through the provision of advice and other work, including its programme of Heritage Action Zones (HAZs). A number of HAZs have a strong industrial heritage component, such as Elsecar, (with its important remains of the coal and iron industries – the HAZ was completed in 2020), Stockton & Darlington Railway (in the build-up to its 2025 bicentenary), Greater Grimsby (once the world’s busiest fishing port), Stoke-on-Trent Ceramic (home of the pottery industry) and the railway town of Swindon.

Sustainable Reuse

An increasing number of historic industrial buildings have been successfully repurposed to a variety of new uses, reflecting the growing recognition that existing buildings need to be adapted and reused, rather than demolished and replaced. Historic England’s ‘Mills of the North’ project (covering Greater Manchester, Pennine Lancashire and West Yorkshire) sits under this heading, and aims to raise awareness of mill reuse, promote strategic engagement and target priority mills. Recent work includes publishing Driving Northern Growth through Repurposing Historic Mills, developing a pilot mills strategy with Oldham Borough Council, and looking at the potential transformational reuse of the Grade I listed Temple Mill, Leeds.

Industrial Sites Preserved as Heritage Attractions

Funded by Historic England with the generous support of the Association for Industrial Archaeology, the Industrial Heritage Support Officer (IHSO) post – held by Dr Michael Nevell – is hosted by the Ironbridge Gorge Museum Trust. Focussing on nationally designat-ed, publicly accessible and interpreted industrial heritage sites, such
as museums and monuments, the post has become vitally important in helping them recover from the Covid-19 pandemic and face the current cost of living challenge. The IHSO provides direct face-to-face support, promotes resources through two websites (one offering general support, and the other relating to the networks), maintains Facebook and Twitter accounts, and manages the ten Industrial Heritage Support Networks covering England. Research is also underway to better understand the sites and the challenges they face to guide future action, whilst a number have benefitted from the UK Government’s Cultural Recovery Fund (created to offset the impacts of the pandemic): Cromford Mill (Derwent Valley Mills World Heritage Site), Geevor Mine (Cornwall and West Devon Mining World Heritage Site), Crossness Engines (London) and a number of heritage railways.

Industrial Heritage at Risk

Large and/or complex industrial sites – especially those that survive as monuments, engineering structures or retain machinery – can present difficult and ongoing conservation challenges and, for some, reuse options may be limited. Significant progress has been made at a number of the ten key sites identified in the then English Heritage 2011 Industrial Heritage at Risk project: the Elsecar engine, which is believed to be the only in-situ 18th-century steam engine in the world, is no longer on the Heritage at Risk Register; Battersea Power Station was removed from the Register in 2021 (see Bulletin 99) and Historic England has acquired Shrewsbury Flaxmill Maltings - the first building in the world to have a fireproof internal iron frame (discussed in the accompanying paper in this Bulletin).

Knowledge and Skills

To help address the lack of opportunities to develop and improve knowledge and skills in the industrial heritage, Historic England is delivering a series of free webinars. These have considered the developing Industrial Heritage Strategy, the investigation, assessment and recording of industrial sites through the planning process, the Elsecar Heritage Action Zone, textile mill reuse and the work of the Industrial Heritage Support Officer. The webinars are proving extremely popular with over 6,500 views, including on-line views of the available recordings.

Research

Historic England continues to maintain the high standard of research (both internally and commissioned), advice, guidance and publications of its predecessor organisations on England’s industrial heritage. Having gone into partnership with Liverpool University Press, recent industrial heritage publications include The Built Environment Transformed: Textile Lancashire during the Industrial Revolution (Timmins, G, 2021 – joint winner of the Association for Industrial Archaeology’s prestigious Peter Neaverson Award for Outstanding Scholarship in Industrial Archaeology 2022), The Soho Manufactury, Mint and Foundry: Where Boulton, Watt and Murdoch Made History (Demidowicz, G, 2022) and The Architecture of Steam: Waterworks and the Victorian Sanitary Crisis (Douet, J, 2023), with more in preparation.

It has only been possible to provide a brief overview in this article of some of the work currently being delivered as part of Historic England’s draft Industrial Heritage Strategy. As the world’s first industrial nation the UK’s industrial heritage offers huge potential underpinning the distinctive character of many of our urban and rural communities with its strong regional and local identity, providing accommodation for new homes and businesses, and unique heritage attractions that are a major educational, leisure and tourism asset. Public attitudes surveys have shown considerable interest as illustrated by the many thousands directly involved in the conservation, management, display and running of industrial heritage sites. However, this potential has yet perhaps to be fully realised with our industrial heritage providing a direct link to the lives and ancestors of ordinary working people who may not normally engage with more traditional forms of history.
Two hours’ sailing south of Greenland’s capital, Nuuk, lies the abandoned fishing station of Nordafar. The facility is the size of a small village; with around 30 buildings, cold stores, production halls, quays and other installations. From 1948-85, fish and prawns were traded, frozen and packed here. During the high season, approx. 150-200 seasonal workers worked and lived on site – from both Greenland, the Faroe Islands, Norway and Denmark. In their spare time, they could play billiards or watch movies in the Welfare House, shop in the store or eat at the Sailors’ Home. There was even a small police station with a jail in case of trouble. The fishing station gradually closed down due to declines in the fish population, and Nordafar went bankrupt in 1989.

The station sits on a desolate part of the Greenlandic coast, exposed to weather and wind, and is slowly falling into disrepair. In winter, it snows in through holes in the roofs and broken windows, and it is not unusual to see traces of fox, hare or perhaps reindeer in the abandoned halls.

The buildings are a relic and testimony from an important period in Greenland’s industrial development. They are testimony to its technological and economic development, but are also relics from a time when people’s lives were undergoing major changes, in a transition between past and present society.

Industrialization began as late as around 1950, and has since then influenced and shaped Greenland and the Greenlandic landscape. The new fish production created jobs in the cities, which grew explosively as more and more Greenlanders moved there from the
more traditional residences along the coast. Factories, harbors and roads were built, just as schools, hospitals and other infrastructure also on a large scale for the cities’ new residents.

The rapid transition from traditional hunting to a modern production society caused the country’s industry to go through several phases in terms of size, capacity and technological levels, at a very high pace. It was often cheaper to build new facilities in step with development, or production moved to other locations as ports and cities developed. Where fishing production facilities early in the period were often located on isolated coastal areas with deep natural harbours, from the 1970s these gradually moved into the cities - with modern harbor facilities, production halls and local labour.

Around the country today there are a number of facilities that represent earlier and obsolete phases in the industrial development – abandoned or used for other purposes. These are important pieces in the history of Greenland in recent times, and of the society’s path from traditional to exporting industrial nation.

Today, fishing is Greenland’s primary industry, and in 2021 the country exports totalled USD 633 million. In relation to a population of only approx. 56,000 people, that says a lot about the importance this industry gained over time.

Greenland’s National Museum and Archives is currently running a research project on the Nordafar fishing station. The project culminates in autumn 2023 with an exhibition at the Greenland National Museum. Based on building surveys, archival studies and interviews with people who have lived and worked at Nordafar, the project uncovers a small part of the story on the importance of the fishing industry in Greenland. We are an interdisciplinary research group that investigates the material, cultural and social-historical framework for the fishing industry.

We cover various areas such as built cultural heritage, recent history and the common aspects of the experience and everyday life of workers and residents on site. The aim is partly to assess the facility’s cultural-historical significance and partly to examine the conditions and life in Nordafar, for the people who were part of this period of Greenland’s fishing history. We look at what significance the station had, what values and challenges existed around it, as well as give an assessment of how long the buildings will continue to exist as a cultural relic. In addition, a photographer follows the work and documents the condition of the facility and the aesthetics of the decay.

The project is part of a larger initiative from Greenland’s National Museum & Archives, which will focus on recent times and modernization in Greenland, and in the long term, the ambition is to develop a conservation strategy for the country’s built industrial heritage. We also want to focus on the history of an industrialization process and social change that differs significantly from many other countries, and to create insight into and convey the social and cultural values and traditions that are part of society today, as a result of this process in Greenlandic history.

The Greenlandic industrial cultural heritage is an important part of the story of the emergence of modern Greenland. Precisely because the development has been so compressed and fast, there is also a pronounced risk of overlooking the different phases and their significance – both for the economy and the people who experienced the changes.

A facility like Nordafar has been abandoned since the 1980s, and is now rapidly being broken down and disappearing. At the same time, most of those who once worked on the site are getting old, and before long their memories and knowledge will also be gone forever. The same applies to several other industrial plants from the same period, which is exactly why it is important to carry out this kind of interdisciplinary research, linking built heritage and the lived experience.
Memories and identities of generations of industrial communities regularly drive heritage in remembrances however constructed, of families, loved ones, and regional pride. This is especially true of more recent industries that existed through the mid-20th century and concentrated in defined and ultimately populated regions. These heritages are explored and celebrated by customs and traditions passed on to honor family members who sacrificed, toiled, and existed to create the world we now inhabit, and give meaning to our places and landscapes. But as we all know, celebrating a history solely from the ground up erases significant components of history from the dominant narratives.

The United States witnessed a heritage boom in the 1970s. The US, acknowledging 200 years since declaring independence from Britain, saw the creation of numerous historic sites, monographs, television shows, and a surge in participatory history that continued through the end of the century. In Pennsylvania, the state history agency, the Pennsylvania Historic and Museum Commission, doubled the number of its historic sites which included three dedicated museums to anthracite coal mining. Anthracite was the first new energy developed in North America after wood and waterpower, was used by Euro-Americans from the 1760s, and has been continuously mined ever since. Although peaking in the second decade of the 20th century, the coal is mined today at a rate of about 10% of its peak.

As with many historic site developments of the time, the museums began with donated personal collections, stories of family members, and generally accepted historical patterns that played out based on expanding markets, technologies, and European and internal immigration. Starting initially with the recruitment of technical experts, companies drew from the well-developed mining and manufacturing centers in Europe. Then as industries were established and grew, firms went on to heavily recruit laborers from other areas of the world that were experiencing economic, political, and/or religious strife or were facing famines or other disasters.

In the anthracite region, that meant immigration initiated from Wales, England, and Germany, then Ireland, and Eastern and Southern Europe. Other parts of the US drew from Scandinavia, Asia, Central America, and the American South. The anthracite region still celebrates Irish culture with six St. Patrick Day parades; Eastern European culture with four Kielbasa festivals and a pierogi festival; and Italian culture with multiple festivals, and pizza and pasta dishes dominating menus of over half of restaurants in the area.

Regional museums and heritage sites initially drew from these celebrated positions and many exhibits focused on the hard work and lives of Euro-American miners and their families. We talk about noted strikes, underground dangers, breaker boys, and significant disasters. We all understand the challenges immigrant groups faced when they arrived including ethnic persecution, economic segregation, and limited opportunities. We talk about the roles of women in the mine towns and textile mills from an almost heroic vantage point and the challenges, sacrifices, and hardships families faced to create the world we live in and want to celebrate today. But the focus has been almost entirely on Euro-Americans.

Like many museums, the Anthracite Heritage Museum is reconciling that legacy and expanding our interpretations to include the components that have not be celebrated or even acknowledged in the traditional sense but certainly should be understood and contextualized in new narratives. Such as the continued legacies of mistreating new immigrant groups in the present and the understanding of the roles of people not from a western lineage. There have been people of color, non-christian religions, and “outsider” cultural groups all along in the mining region, not necessarily engaged in mining, but filling other important social and cultural roles, and new immigrant groups facing the exact same resistance as Eastern Europeans and the Irish faced in the first decades of their arrival. These groups have not been part of the existing narrative. However, as we initiate these discussions, we also face resistance from the families of those ancestor miners who don’t want us talking about anyone except their families. We have heard people say that their ancestors came to this country and worked very hard to overcome economic realities, not like these new people who just come here to murder and steal. Others have said that talking about “outsiders” and new immigrants only dilutes the stories of their families. While the word “woke” has not been spoken directly, it is out there. But this is not woke. This is history. The better we can understand the cyclical pattern of behavior of dominant groups over the less affluent and understand that all people living in this region have some connection, direct or indirect to the anthracite industry and thus our history, the better we can understand the past and the future.

The Anthracite Heritage Museum in partnership with the University of Maryland recently completed phase one of a new digital exhibit titled “We Are Anthracite” to collect and share the stories of people not represented in the museum. To share the stories of new immigrants in real time and to understand these cyclical patterns of behavior. To share the stories of people who have been in our region for centuries but whose stories were deemed irrelevant.

The first community has been completed. We look closely at the stories of new immigrant groups from Central and South America and include versions in Spanish and English. Over the next few years, we will partner with other community groups, not formally represented in the museum’s current exhibitions, to share their stories and understand the historic patterns of immigration, assimilation, and peripheral existence in the context of a 250-year-old American coal mining community. Ultimately these groups will be formally included in updated exhibits in the next few years. Visit http://www.anthracitemuseum.org/we-are-anthracite/
The Chuquicamata open pit copper mine has been in production for more than a century without interruption. Its manual exploitation dates back to pre-Columbian times by the natives of the area known as *chuco* or *chuqui* who made copper weapons and tools. The word Chuquicamata comes from these indigenous people, which means limit of land and also spearhead according to etymological versions interpreted today. There are archaeological antecedents that would date these incipient mining exploitations in some 400 to 500 years BCE. The territory that occupies more than 900 hectares and with an elliptical shape that has a length of 5 km by 3 km, and the excavated depth reaches 1000 m in its deepest part. It is currently in full production and mainly copper is extracted, but also gold and molybdenum. Production for the year 2017 was estimated at 350,000 metric tons of fine copper.

The industrial exploitation of copper began on May 18, 1915 with the production of the first bar of fine copper by the company of the Guggenheim brothers who called the firm Guggenheim Bros producing an explosion in the production of copper which attracted thousands of miners to the area to work in the deposit. Subsequently, the company grew and incorporated various owners who transformed it into Chile Copper Co, Anaconda Co. and Chile Exploration Company.

In 1971, the nationalization of copper mining was approved in Chile, passing the property of Chuquicamata to the state, creating the company Corporación del Cobre, known by its acronym CODELCO. The camp located very close to the mine began around 1911 and had about 25,000 inhabitants at its peak. At the end of the 20th century, a process of gradual depopulation of the Chuquicamata camp began, supported by technical reasons related to the expansion of the mine and by the high atmospheric contamination of the place. This process culminated in 2007 with the transfer of the last families to the city of Calama. Chuquicamata is today totally uninhabited.

The Council of Monuments of Chile declared by Decree No. 273 part of the historic center of the camp, as a Typical Zone. Initiative that included some buildings as Historical Monuments. This legal protection was granted on May 13, 2015.

Today we have part of Chuquicamata protected as an industrial heritage for 8 years, an achievement of great relevance, since the copper industry continues to function and both realities must coexist and dialogue to meet objectives, not necessarily convergent and with very different rules of the game. At the end of 2017, the development of a project requested by CODELCO to prepare a Management Plan for the Conservation of the Chuquicamata Camp began. A complete compilation of texts, documents, magazines, books and
publications in general regarding the history of the Chuquicamata Camp was carried out. On the other hand, there was an urgent need to know those elements existing in the place today, which are part of the set, to be able to identify them and at the same time to be able to define their current state of conservation.

The Management Plan for the Conservation of the Chuquicamata Camp contemplates three phases of development and will be implemented within a period of 10 years. A first period to implement Emergency Projects, which contemplates the design and execution of 10 projects in a maximum period of 2 years and whose objective is fundamentally to stop the accelerated physical deterioration of the existing heritage in the place.

A second period considers the development of an infrastructure and adaptation of the Camp to receive tourism with the objective of generating a self-sustaining management model, which allows its financing and adequate conservation of the heritage site. This stage will also be managed by CODELCO, but the creation of a non-profit foundation is contemplated to take over the management of the site and generate resources to manage the site. This second period is defined with a term of 3 years so that at the end of the last year the foundation takes charge of fully managing the Camp.

Finally, and during a 5-year period, the Chuquicamata Foundation will take control of the entire Camp and its comprehensive management, considering its administration and the necessary conservation of the site, with an emphasis on controlled use, based on cultural tourism, as the axis of its development. Other projects for the enhancement of the Chuquicamata Camp are a pilot painting project of 86 facades of the historic center, whose execution works will begin in 2023.

The Pala Mundial conservation restoration project to be carried out in the coming months has also been completed. The project to enhance the public areas of the Chuquicamata Cemetery, which has already been approved by the National Monuments Council, which includes a comprehensive management plan for its maintenance and permanent restoration of its heritage.
SLOVAKIA

HISTORY THROUGH INDUSTRIAL OBJECTS

Martin Dubiny and Vladimír Hain, Faculty of Architecture and Design, Slovak University Of Technology

Slovakia, a relatively young country with a 30-year history of independence, has been gradually learning since 1993 to perceive its older political, cultural, and social history through the prism of industrial objects. A large part of industrial architecture was created during Austria-Hungary empire or during the era of socialism when a new wave of industrialization took place in our territory. In the last 30 years, not only one generation has changed, but also the opinion about industrial heritage. From the beginning of the 1990s until today, industrial architecture is looking for a place among the emerging urban structure.

In jubilee years, it is customary to look back on the past and take stock with a view to the future. Let’s mention just a few of the implemented projects that recently brought awareness and contributed to the rescue and restoration of the industrial heritage in Slovakia.

For the past ten years, the rescue and gradual restoration of the historical tugboat Štúrec, which belongs to the largest collection of items of the Transport Museum in Bratislava, has been ongoing. It is expected to build a full-fledged shipping museum, which should document the history of shipping in Slovakia. In the port of Bratislava, port facilities are included in the list of national cultural monuments, which remain a reminder of one of the largest port cities.

Tugboat Štúrec in Bratislava port. (Martin Dubiny 2021)
in our country. Since the beginning of the 20th century, however, the port has gradually changed its original boundaries due to the development of the city.

In 2017-2019, the international DANUrB project was implemented, financially supported by the EU Interreg DTP program. The ambition was to identify unused tangible and intangible cultural heritage to create a common brand (DANube Urban Brand) and to strengthen international cultural ties along the river Danube for the development of tourism. Industrial heritage was also on the agenda of the project. Since the project was focused on the flow of the Danube River, in the Slovak context, the research focused more closely on the cities of Komárno and Štúrovo. River ports, a munitions factory, water mills and other objects of industrial heritage were investigated. In total, nine EU countries (Austria, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Romania, Slovakia, Slovenia) and five non-EU countries (Bosnia and Herzegovina, Republic of Moldova, Montenegro, Serbia, Ukraine) were involved in the project.

In the summer of 2018, the reconstruction of the Jurkovič heating plant in the Sky Park project began. The heating plant from 1942 was designed by Slovak architect Dušan Jurkovič. The building, located in the former industrial zone of Mlynské Nivy, today in a newly emerging city district, thus acquired a new look. The heating plant building was transformed into office spaces and spaces for cultural and social events. Significant details are the preserved hoppers, brick facade, brick elements in the interiors, steel structures from the boiler hall and other elements. The renovated building was opened in the autumn of 2021.

The successes of the DANUrB project were followed up by the ongoing DANUrB+ grant, which was supposed to strengthen further and develop the cultural heritage in the peripheral and border regions along the Danube. The goal was to activate cultural heritage for the development of tourism. Therefore, the project was based on four main pillars: research, planning tools, education, and activities. The negative of the project was its implementation taking place in the difficult pandemic years of 2020-2022.

In the past 2022, the Industrial Conversion Award competition was announced as part of the Industrial Days event, which presents and promotes inspiring examples of industrial heritage conversions in Slovakia. Nominations for the competition could be submitted by an investor, author, operator, university, monument office, municipality, or professional public. The first laureate of the award, which was chosen by an international jury from 20 nominated works,
was the architects Juraj Almássy, Peter Bouda, Richard Čečetka and Ivan Masár for the conversion of the Pradiareň 1900 building – the historical building spinning mill and power station, the oldest preserved parts of the Hungarian black factory in Bratislava. The award “PATRON of industrial architecture” went to doc. Ing. Eva Kráľová, CSc. for contributing to education, protection, and restoration of industrial heritage in Slovakia. The Industrial Days event, already in its sixth year, focuses on current issues of industrial heritage and is prepared in cooperation between Design Factory, o.z. and the Faculty of Architecture and Design of STU in Bratislava.

At the end of 2022, the RAIL 4V4+V international project, financially supported by the Visegrad Fund, was completed. The project focused its research on railway lines that played a role in the historical development of the V4 regions. Institutions from the Czech Republic, Hungary, Poland, Slovakia, and the Serbian part of Vojvodina were involved. The researchers aimed the identification and promotion of railway heritage for the sustainable development of tourism.

The industrial heritage witnessed the development of the company. And today, our country is still facing the issue of dealing with the reality of integrating industrial buildings as traces of the industrial past into new urban units, so that their cultural and social value is raised to the same level as new architecture.

Screw manufacturing was based on the privilege of the Swiss mechanic Rudolph Rieter from Winterthur. Initially only wood screws were produced in the factory, but just three years later - in 1823 - screw production was outsourced and an independent company was founded by imperial and royal appointment: the k.k.priv. Holzschrauben- und Metallwarenfabrik Brevillier & Co.

In addition to wood screws, the product range was expanded to include barrel and metal rivets, nails with brass heads, gun screws, hinge straps and piano tuning nails. Components for spinning machines, parts for steam boilers and gear wheels were also produced. By the mid-1830s, the factory employed more than 300 workers.

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**AUSTRIA**

**THE NEUNKIRCHEN SCREW FACTORY**

*Dinhobl Günter, TICCIH Austria and Dieckmann Richard, Austrian Federal Monuments Office*

The Neunkirchen screw factory was founded in 1820 within a cotton spinning mill that had been operated by the industrialist Carl Wilhelm von Brevillier since 1811. Neunkirchen is about 70 km south of Vienna. At the beginning of the 19th century its location on the road connecting the Habsburg imperial capital with its port on the Adriatic, Trieste was important, as was its river, the Schwarza, for factories in the region.
Leading up to the First World War, the factory continued to expand and a number of new companies were acquired and integrated, including - in 1900 - the Viennese rivet, screw and nut producer, A. Urban & Söhne. The First World War temporarily boosted the production of these products, but in the post-war period there was a severe shortage of coal due to the dissolution of the Habsburg empire and the loss of cheap energy. After a transitional period in which charcoal was used as a substitute, it became possible to fall back on coal supplies from the black coal mine in Grünbach. During the Second World War the factory was once again re-purposed for military-industrial production, resulting in bombardments of the plant by allied forces between 1943 and 1945. In the early post-war period, reconstruction took place on a piecemeal basis, but a sustained economic revival only began after the end of the Soviet occupation in 1955, continuing up until the late 1970s. The early 1980s were marked by stagnation, and in 1983 Brevillier & Urban Aktiengesellschaft went bankrupt. Neunkirchner Schraubenwerk GmbH - which continued to operate out of the bankrupted estate - had to stop screw production altogether almost ten years later, in 1992.

What remained was about 65,000 m² in the immediate vicinity of the city centre of the district capital Neunkirchen. The area leant itself to urban expansion, however investigations of the soil revealed high levels of pollutants and groundwater contamination and it was classified as a ‘contaminated site’ in need of urgent remediation. As a consequence, a total of 26 buildings on the factory site were demolished between 2001 and 2003 and the contaminated soil excavated and removed up to a depth of 19 m. The cold pressing plant was decontaminated and was able to be preserved together with the boiler house. These two buildings - together with the electric power plant and the water tower making up the remains of the Neunkirchner Schraubenfabrik - were listed in 2010. However, the chimney adjacent to the boiler house was demolished before building protection measures could be implemented, a practice unfortunately often observed in relation to unused chimney structures (see Enikő Charlotte Zöller on chimneys in TICCIH Bulletin #95).

The cold pressing plant is located in the immediate vicinity of the power station and water tower. Inside, there are iron columns and iron trusses. Unfortunately, the wooden floor between stories had to be removed. As part of the revitalisation of the site and the construction of the ‘Panoramapark’ shopping center complex it was adapted for new use. Currently a food company is located on the ground floor and service companies on the upper floor. Access to the upper floor is via a new glass extension in front of the existing facade which unfortunately modifies its original appearance.

The boiler house dates from the time of the expansion of the factory facilities and consists of a two-storey main building with a gable roof, smooth plaster façades, cornices and transomed and mullioned windows. The hall houses a 1917 Babcock & Wilcox brick-built boiler with continuous travelling grates. Steam from the boiler was used to power AEG-Union steam turbines and three-phase generators located in the main building. The upper floor houses switchgear - dated 1912 - with original marble switchboard and floor tiling, as well as a gantry crane and iron trusses. This power station supplied electrical energy for the factory until 1978. In the boiler house itself, there was no need for decontamination. The boiler house with hall is currently unused and faces an uncertain future.

The history of the Neunkirchner Schraubenfabrik evidences a rich and multi-faceted industrial heritage, whilst simultaneously demonstrating the challenges of preserving historical factory buildings. Soil and especially groundwater contamination required large-scale remediation. As a consequence, a total of 26 buildings on the factory site were demolished between 2001 and 2003 and the contaminated soil excavated and removed up to a depth of 19 m.
remediation measures with result that only three of original 29 buildings could be preserved. In one, the ground below the building also had to be partially excavated, while no relevant soil contamination was found in the other two buildings. Of the three listed buildings, the cold pressing plant could be adapted for commercial and services uses, the water tower continues to be used for “green” electricity generation, and the boiler house has an interior that is significant in terms of industrial history and has been largely preserved. However, no suitable use has so far been found, one that could support the renovation of the remaining fabric, including the original interiors. The screw factory in Neunkirchen shows that conversions can affect the original appearance and therefore require consideration of structural and historical values as well as a sensitive approach to planning in order to preserve the original appearance as far as possible.

INDUSTRIAL CULTURE AND HERITAGE IN ZACATLAN AND NECAXA

Celina Peña

The early arrival of the Industrial Revolution in Mexico in the 19th century allowed industry to grow fast in all the country. Since the end of the century, activities like mining or industries like textile factories, armories, cider and liquor factories went from small manufactures to modern factories.

In 1902, engineer Fred Stark Pearson began the construction of the Necaxa hydroelectric power plant, an innovative project consisting of five dams, three powerhouses and a substation that allowed the modernization of the entire region, which at that time was mainly populated by the Nahua indigenous people.

While Necaxa’s dam was growing, also a nearby town grew up. Evidence of this growth is Trejo Arms Factory, the Charolet Ironworks,
Alberto Olvera’s El Centenario monumental mechanical clock factory and the first apple cider factories in the country were projected.

In 1900 Zacatlan was experimenting a transition from agriculture to modern industry. Throughout the years, this town in comparison with other towns of the state and the country, fortified the small industry.

Despite of this industrial career in the Sierra Norte de Puebla, it's governments and towns have been concerned about the rescue, strengthening, management and conservation of identity and industrial heritage.

Zacatlan has currently started the rescue of old factories, also they're promoting their museums and the creation of an interpretation centre, and a tourist corridor specialized in industrial heritage. Zacatlán has a cultural landscape with protected natural areas, with unique gastronomy and endemic forest areas, which have led it to obtain the tourist reputation of magic town, which receives an important quantity of tourist. This industrial heritage converges with ancient churches, natural sightseeing, liquor factories and making Zacatlan a very important cultural attraction for Mexico and Latin America.

For its part, Necaxa offers the protected natural reserve Cuenca hidrográfica del Río Necaxa, an ecological reserve since 1938, where the old hydroelectric complex of Necaxa is located. This living heritage has a unique cultural landscape in which the workers' identity was promoted since 1914 with the creation of the Sindicato Mexicano de Electricistas and has allowed the recovery of its historical memory, its industrial memory and its knowledge of the hydroelectric industry. Currently, Necaxa through its authorities and civil society organizations, the Mexican Electricians Union, as well as the former workers of the company Luz y Fuerza del Centro, have fought for Necaxa to be recognized in UNESCO's list as Cultural Heritage of Humanity.

Necaxa has in each worker's house a small museum, so it is impossible to think of the town's history without the history of the hydroelectric plant that has led to the mention of Necaxa Cuna de la Industria Eléctrica de México (Cradle of the Mexican Electrical Industry). The historical and cultural richness make Necaxa an attractive cultural reference for the formation of professionals in history, architecture, engineering and literature.

Within the framework of the Tenth Latin American Congress of TICCIH (see page 31) a post-congress session will be held in these locations with thematic sessions and guided tours to learn about these unique examples of Mexico's industrial heritage and cultural landscape.
In 2011, I was waiting for the train on my return trip from college to my village, and I saw a train from Alexandria heading to Cairo. The locomotive pulling the train stopped right in front of me. On the locomotive’s body, was a small banner with THYSSEN HENSCHEL KASSEL 1976 written on it. Was this the date of the manufacturer’s establishment? Or is it the date of manufacture of this giant locomotive? Is the age of this locomotive that pulls all these wagons and is relied upon in the Egyptian railway fleet 36 years?

I decided to search for what I found written on this small banner. I came up with the idea of creating a page to document the railway heritage of Egypt in an organized manner, so I made a page on the

lost legacy of the Egyptian Railways called it Egyptian Railways Heritage.

Train passenger used to give nicknames to some types of locomotives, such as Abu Khalil, which was the narrow gauge locomotive, and Saadia al-Hebla, which was some old German locomotives that resembled the pregnant woman and Elmagri train, as people used them in their daily lives to indicate the completion of things quickly, a reference to the Hungarian Express train, the fastest train on the railway at this time. The owl locomotive is a name for one of the locomotives, as it resembles an owl, a turbine, a ghoul, a ferry, Marlboro and many, many others...

All heritage was lost due to the lack of a culture of documentation and the country’s exposure to occupation and unrest during the period from the beginning of the construction of the railway from 1852 to 1973.

English unit Sentinel-Cammell Steam Railcar No 5208. Some steam units were supplied to the Egyptian Railways in 1934, representing a
quantum leap in the history of the railway, as the trains consisted of a coal-fired locomotive pulling behind it a cart full of coal needed to operate the train. However, these units were integrated units, several batches of which were supplied until 1951, and their speed was 95 km/h, and they accommodated 196 passengers. I found one of units No. 5208 displayed in England, and how did it get there? One of the units was stored in one of the railway workshops, waiting for its turn to be scrapped, as is the custom of all Egyptian railway trains. The manufacturer learned of the existence of this unit, so it contacted Egyptian Railways in 1984 to buy it and extract it from its inevitable fate. The unit was transferred to the port of Alexandria in 1985 on a journey back to the home of its manufacturer, and it is now displayed as part of the manufacturer’s heritage in Buckingham.

Here comes the most critical question, why didn’t we do that? What is the fate of the previous units and the following units? The answer is all scrapped. The most famous train that entered the Egyptian railways also did not escape this inevitable fate. The turbo train, the train of the wealthy, is the fastest working train within the Egyptian railway fleet. This train was associated in the minds of the Egyptians with the legend. It was traveling the distance from Cairo to Alexandria in 1982. In only two hours at the beginning of the operation, the train was running at a speed of 160 km/h, a result of this great speed that the Egyptian railways had not witnessed before, and the rails were not qualified for this speed. The speed was reduced to 140 km/h and continued operating until 2013. It was considered the only turbine type in the world still working. It was destined to be cut and sold for scrap in 2017, and it did not occur to the officials to preserve one of the units and display it in an open museum.

All diesel locomotives have worked on the Egyptian railways since the first diesel locomotive entered the Egyptian railways in 1948, followed by many locomotives until 1975. To the extent some locomotives were seized in the 1967 war from inside the lands of Sinai, and they are displayed so far in the Enemy Railway Museum in Haifa. The King Farouk train, manufactured in 1951, remained to lie for many years inside a workshop, exposed to theft and looting until it was renewed after 50 years. The Delta train, where is it and where are its old tracks, and what do we know about it and its essential role in transporting people and crops to remote villages from the end of the eighteenth century until the middle of the nineteenth century?
Even when the stations are renewed, the archaeological identity of the stations being renovated is erased, such as the bells on the station, the wooden awnings, and the old buildings. Everything is demolished and rebuilt again.

There is much heritage scattered here and there on both sides of the railroad tracks and inside the workshops. Omitting the locomotives in a derelict condition along the railway track buffer zone is an unintentional act of display. On the one hand, railway workers are slowly experiencing the transition of their interaction with these locomotives from on-hand operation to memories. On the other hand, the passenger experiences an act of curiousness about the versatile facets of Egypt’s railway history, the same notion that pulled me into uncovering the Egyptian Railways Heritage. This abundance of narratives yet to be told necessitates an extension of the existing Railway Museum in Cairo, or better to decentralize the museum idea by constructing an open museum elsewhere.

**POLOGUND**

**ŻNIN SUGAR FACTORY RE-PURPOSED**

*Daria Jagiello*

The sugar factory in Znin was founded in 1893, and new buildings, diversified in terms of function (such as a forge, warehouses of various types, a lime plant, a float water treatment station, a weighing scale and a gatehouse), were erected until the 1990s, making the architecture of the complex highly varied in style. The factory was for many years the largest employer in the region but finally closed in 2004, despite numerous social protests.

In 2015, the ARCHE S.A., owner of a chain of hotels, bought the complex to begin its adaptation. The company set itself the goal of creating a so-called ‘industrial park’ – conference and leisure center. It is one of many historic buildings they have undertaken to adapt for such purposes, and they have recently bought the former Szombierki power plant shown on the front cover. The decision was supported by the vast area of the complex (35 hectares) with architecture with great potential; good transport links while also very picturesque on the shores of Lake Duza; and the desire to preserve the post-industrial complex, being so important for the people and valuable from the perspective of heritage. Despite its location near the center of the town, the site is surrounded by greenery, including the area of the former sedimentation basins and wasteland, with a small river nearby.

The buildings represent typical industrial architecture of the late 19th century, with brick, unplastered elevations, clear axiality and compositional rhythm, arched windows and doors with framing, modest architectural detail. The more decorative form of the facades of the turbine house and boiler room of the former factory are related to the time of their construction (1929).
The factory was adapted into a hotel (conference rooms, restaurant and bar areas were also placed in the building). Both the mass and the facade composition have not undergone significant changes. The biggest transformations were in the functional-spatial layout, adapted to the requirements of the current function, which forced the introduction of numerous minor divisions (hotel rooms), the removal of some of the thin partition walls (former workshops with a laboratory) and the change/introduction of compliant vertical communication. At the same time, the historic outline of the layered building was almost fully preserved. The main entrance in the southern elevation and the direct external communication with the halls were maintained. The basic division of the interior remains legible, with discernible outlines of the former halls (raw material and product hall, drying room or boiler room communicating with the turbine hall; changes were made in the workshop part).

The interiors have maintained their industrial character while gaining a designer flair. The brick of the walls has been uncovered, partially leaving the plaster, thanks to which the transformations and remodeling carried out during the factory’s operation and during the building’s adaptation are visible/readable. At the same time, the preserved columns, steel and reinforced concrete beams or the arcade based on cast-iron columns in the main hall are exposed. New elements, such as the concrete cladding of the elevator shaft, are legible as added elements, while maintaining the industrial character.

Noteworthy, among other things, is the arrangement of the restaurant in the former turbine room and boiler room, where tables are set between massive machines, concrete pillars and on the glazing that allows observation of the ash pans, remnants of the furnaces. The machinery - now exhibits - working in the factory was left in the public space, and small pieces of equipment were given a decorative function.

The same is true of the combined sugar warehouses, the packing house, and former powerhouse, which have been adapted into conference rooms. The change in function forced the introduction of internal divisions in the form of a light mobile wall. Smaller separations are made by using heavy curtains. In warehouse No. I - due to the poor state of preservation of the wooden pillars supporting the roof structure - two rows of steel pillars were introduced even before the adaptation work; in warehouse No. II reinforced concrete pillars were added.

The masses of the warehouses have been preserved practically unchanged. Similarly, the elevations: some of the windows in the southern elevation of warehouse No. I and bag store were bricked up (the change is legible - a different brick was used), and the openings in the ground floor of the eastern elevation were widened.

Other facilities have also been given new functions: the steam locomotive shed has been adapted into a brewery and bar; the technical warehouse into a bowling alley and bar; the administration building into a restaurant, the narrow-gauge rail scale into a confectionery, the sugar warehouses No. III and No. IV into a hotel with a swimming pool and spa area.

We can see with all of them that the idea is to use the same building materials and solutions motivated by functionality, and to preserve as many historic elements as possible. Remnants of the historic infrastructure were also treated with great respect, the original fence with the main gate was preserved, four molasses silos (one of which was used to locate a small cinema), some of the connectors and technical platforms (which allowed to maintain functional relations). The routes of the narrow-gauge and normal-gauge railroads working for the factory remain almost fully preserved, thanks to the preserved rails, sometimes with slabs inserted between them (the tracks then serve as sidewalk).

The adaptation is one of the more interesting and better executed projects in the post-industrial area in recent years in Poland. It is characterized by respect for the object and its history, while at the same time proposing solutions that allow for its maintenance and new role. Its high rating is confirmed, among other things, by its nomination for the Mies van der Rohe Award (2022) and the laurels it has won, including Property Design Awards 2022, Modernization of the Year in the category “revitalization of urban areas and spaces” or hotel industry awards.
SAN LORENZO REFINERY
DISAPPEARING

Miguel Ángel Campos, Pedro Romero and Lucía Sánchez, TICCIH
Venezuela

Oil has been the main cultural supplier of Venezuela throughout the 20th century up to the present. It came to determine from the territorial organization to cultural manifestations and social behaviors of being Venezuelan.

Zumaque 1, the first commercial well, together with the almost immediate San Lorenzo refinery, constitute our original referents of Venezuelan industrial heritage. Located in the Mene Grande oil field, on the eastern edge of Lake Maracaibo, together with the communities in what is now the Baralt municipality in Zulia state, the San Lorenzo Refinery arose as a natural consequence of the discovery of the Mene Grande oil field. August 17, 1917 the first plant began the process of transforming crude oil. Its capacity did not reach 3000 barrels. Within a year, the refinery was already producing gasoline on a scale sufficient to supply the incipient domestic market.

The refinery was an up-to-date facility and replicated the efficiencies of those that the Caribbean Petroleum Company and the Venezuelan Oil Concessions maintained on the neighboring islands of Aruba and Curacao. The expansions of its refining capacity were immediate. In 1926 its capacity reached 10,000 barrels per day. By 1938 its capacity was around 38,000 barrels.

The three towers that are still affirmed on the horizon say nothing to the youth and the indifference of the citizens and officials are today their main enemy. Given the current and contradictory economic emergencies of the once thriving oil country, official orientation of exporting the country’s inoperative industrial facilities as recyclable material, dismembered as scrap, has been implemented, and the recognized condition and cultural-historical value of said referents, the nation’s cultural heritage, is ignored.

The refinery facilities have been partially dismantled for export as recyclable material, ignoring its status as cultural heritage protected by current legislation, which recognizes its cultural value and claims its necessary preservation as a heritage for future generations. The San Lorenzo refinery appears registered under code 1230201001 in the inventory of the Cultural Heritage Institute, the country’s governing body in the matter, as an asset of cultural interest to the Venezuelan nation. Beyond the necessary claim to the corresponding institutions, community participation that recognizes and assumes the industrial legacy of oil as its own and protects it accordingly cannot be postponed.

Dismantling of the San Lorenzo refinery, the first in Venezuela and Latin America. Photo: Julio Montoya

VENEZUELA
The first “Petrol” gas station in the city of Ljubljana was constructed in 1967. The fundamental element of this complex was designed by Milan Mihelić, a Slovenian architect who is currently regarded as one of the foremost representatives of the Ljubljana schools of architecture in the latter half of the 20th century.

This gas station is a completely free-standing concrete canopy (square dimensions: 19 m x 19 m) that is entirely supported by a thick central column. Meanwhile, the canopy’s underside has been artistically designed with a series of organic curves and elegant sculptural touches that give the structure an almost tree-like feel as it floats lightly overhead. Nowadays, the building is abandoned and waiting for the mercy of a new landlord. This building’s architectural success was so great that it was even written about in German architectural magazines at the time, making it one of the few Yugoslav buildings of this type that was so frequently mentioned abroad.

Opposite it is a gas station designed by architect Edvard Ravnikar (1907-1993). Ravnikar was able to create modern architecture with a distinct cultural identity that is surprisingly self-evident in the space. It perfectly combines tradition and modernity. It is a 60-m structure made up of three identical concrete umbrellas linked together supported by three vertical columns. The central massive-ness of the panels thins towards the exterior, giving the impression of a blanket. The layout allows the pumps to be placed diagonally, maximising space utilisation.

Another gas station with a mushroom-shaped canopy of the Petrol brand was built in 1968/69 north of the centre of Ljubljana, possibly one of the most ambitious additions to the series of gas stations of the “Petrol” brand. In contrast to the Tivolska 46 facility, which used a single canopy, this used a set of five concrete canopies the vehicles. This complex, which was built as a series of linked umbrellas, continued to investigate the possibilities of using architecturally sophisticated floating canopies not only for the convenience of customers at Petrol gas stations, but also as a form of brand recognition for the oil company, as such innovative structures became a visual synonym for the brand. This complex is still in use today as a Petrol gas station, with the canopies in good condition and little change.

Gas stations are an important part of our industrial heritage because they show the evolution of traffic as a place and, as a result, the direct socioeconomic situation of a specific time and place. They played an important role in our motorisation history, and while some have been preserved thanks to monument protection, others have gone unnoticed by the general public or have succumbed to the ravages of time. Even today, I’d be driving by without knowing what I was looking at if I didn’t have parents who are architects and passionate advocates for cultural heritage, who knew how to show me the various stories of our area through the architecture of buildings, bringing history closer to me.
Before the mid-20th century, steam was not only the way to move heavy loads, it was also the way to lift them. As locomotives and rolling stock became heavier over time, so did the demand for specialized lifting machinery. Railroads of all sizes invariably needed steam equipment for derailments and construction projects. F.W. Brazier, superintendent of rolling stock for the New York Central, wrote in 1909, “...When I look back thirty-years and think of the cars and locomotives we had in those days, and compare them to the engines and cars of to-day, it is like comparing toys with the great battleships which are now in service.” (Railroad Men, Volume 23, No. 1, p196). Early in his career, screw jacks, skids, and ropes were employed to hoist wreckage onto waiting flat cars. Derricks powered by human muscle were introduced, “...and we thought we were equipped to handle all classes of equipment. This was followed by the steam derrick, and then the wrecking crane with self-propelling [sic.] device.” Mechanization was immediately felt with tracks clearing much faster.

Today, perhaps the best illustration of this is at the Nevada Northern Railway in Ely, Nevada. Their 1907 Industrial Works 100-ton crane No. 1789, Wrecking Crane A, is kept in top operating condition. Tool Car A-1, carrying everything from car jacks to wooden blocks, is likewise pristine. Red paint overspray, from painting in the 1930s, can be seen on various pieces of rigging. While displaying the
wrecking equipment and firing up the upright boiler is a planned yearly event, the crane has made at least one unexpected appearance when it’s called upon to perform.

Industrial Works was once a prominent part of Bay City, Michigan. A 1931 merger combined the company with Brown Hoisting Machinery Company (of Cleveland, Ohio) to form Industrial Brownhoist. This juggernaut of railroad cranes supplied the industry until American Hoist Company purchased it in 1960, ending the company’s autonomy. The last piece of equipment left the former Industrial Works site in 1983, ending a 110-year operation. The plant in Bay City no longer exists.

By contrast, Tool Car A-1 hasn’t travelled far from its origin. It was built in 1938 from a converted dump car. A wooden deck forms a raised platform under the boom where the rigger could be seen working. Adjacent, a riveted steel turret-like structure stores tools behind sliding doors.

Time is Money

The Nevada Northern Railway is truly a unique destination when it comes to old iron. This has much to do with its remoteness; it’s a doorway into an untouched industrial landscape. Besides a world-class scenic railroad, the site is also a lynchpin of operating steam preservation. The original locomotives are kept and maintained in their original shops, some having been on the property before World War I. Historic machine tools have also enabled the ongoing restoration of Nevada Northern No. 81. It makes sense that with such a concentration of ability and knowledge, a steam crane would be a handy item. Years ago, the Western Pacific saw this in a pinch and asked Nevada Northern to borrow Wrecking Crane A for a derailment in their territory. Thus, the only anachronism of the 1907 crane was born; roller bearings added by the WP.

Once part of the lucrative Kennecott Copper empire, the mine and the railroad were very well equipped. Merely a few miles away from Robinson Pit are the railroad’s shops (known as East Ely). As trains loaded with copper ore streamed in from the pit towards the smelter, the Nevada Northern’s wrecking cranes, A and B, were kept on standby. A free-standing wrecker shed housed the crane and its tool car at East Ely. Derailments were such a hindrance to operations that hot water was piped through the boiler, plumbed from the shops, twenty-four hours a day! This lessened the amount of time to get a working steam pressure built. However, with haste comes added danger: At least one employee died in the swing of Wrecking Crane A during the freight era.

A unique railroading experience

Pulling levers is an unforgettable experience in a steam crane. I had my turn at the controls after the wreckmaster gave the all-clear. Ten levers stood before me, each one pulling against my grip like an arm wrestling match. The sharp hiss of steam and mechanical clatter makes for a thrilling operation. It’s a thrill that’s not difficult to find at the Nevada Northern Railway. With two functioning steam locomotives and a third coming back to life next Spring, East Ely is a slice of 20th-century engineering. The shops, still appointed with the original machine tools, are open for visitors to wander in or...
INDUSTRIAL MUSEUMS

take a guided tour. It’s no wonder then, that the operation attracts entertainers, visitors, and volunteers from all over the world. The railroad represents the culmination of historic railroading with an influence of antique heavy equipment.

Wrecking Crane A and Tool Car A-1 can be seen in situ within the engine house at East Ely. Special events warrant the crane’s return to steam, especially around Labor Day weekend. Winter Photo Shoots, scheduled for each February, sometimes see the wrecking train configured in an authentic consist for photographers. Under whichever conditions you have to view it, take note of its simplicity and genius. This a window into a time before hydraulic heavy equipment where pure mechanical muscle and steam dominated the worlds of construction and transportation.

CONFERENCE NEWS

THE X LATIN AMERICAN COLLOQUIUM FOR THE CONSERVATION OF INDUSTRIAL HERITAGE

Camilo Contreras, TICCIH Commissioner for Latin America and The Caribbean

The X Latin American Colloquium for the Conservation of Industrial heritage to be held in Monterrey, Nuevo Leon, Mexico, 24 - 27 of October 2023, is designed to scrutinize the way we reflect, conceptualize and manage industrial heritage from and for this region. We have titled it Latin America and its Industrial Heritage. Challenges and Collaboration Networks.

The Industrial Revolution, the Colonial era of past centuries, globalization, as well as emerging neo-colonialism phenomena at the same time as decolonization, urge us towards conceptual and epistemological deconstructions. In general, in Latin America and the Caribbean we adopt a Eurocentrist vision of the Industrial Revolution, along with its implications, when in fact, and in words of the Anthropologist Novelo, what we had in this region was a more or less finished implantation and with various presentations of that revolution that came a century later.

Nothing is more wrong than following an evolutionary posture in the sense that it was a matter of time that the Industrial Revolution took hold in Latin America and the Caribbean, following the same path as in Europe. Pre-Columbian cultures (many that still endure today), colonization, extractivist and accumulation production, the trade with the East thanks to the Chinese Nao (1565-1821), even rivaling European trade, are only some of the multiple historical and geographic factors to take into account to place the typology of Industrialization in the Americas, especially in Latin America and the Caribbean.

In combination with the intense economic and productive interdependence due to globalization, in this region we find artisanal production and not in a marginal way, which constitutes another peculiar aspect of the industrial world of Latin America and the Caribbean.

Without a doubt, we require adequate approaches for the study, understanding and management of the region’s industrial heritage. The epistemic decolonization is a collective task, and it’s not only the responsibility of the colonized, but also the colonizing sector. Its just as important to “expropriate” and deconstruct the knowledge of other parts of the world, as important as recognizing the heritage process of “others”.

The X Latin American Colloquium opens three main axes: a) Challenges and scopes for the protection and conservation of both tangible and intangible industrial heritage; b) Memory, Cultural Heritage,

MEXICO

and new forms to represent industrial heritage; and c) Collaboration networks and management models for the safeguarding of industrial heritage. They will place us in the realities of the historical, economic, legal and political context that (dis)favor the conservation of industrial heritage. The second axis will show with a certain degree of optimism that there is a balance between academic and disciplinary approaches in the region, which indicates that the material has not overshadowed the immaterial. From the Social Sciences and Humanities there is coverage of collective memory, forms of organization, and in general in the sphere of social reproduction (not only for production). It is encouraging that newer generations are innovating the ways to represent industrial heritage through the arts and technology.

The third axis follows the new philosophy of TICCIH: plural collaborative work. It is recognized that there is a rich diversity of different actors working around industrial heritage, be it in the forms of academic, social, governmental or private sectors. The presentations on this axis will focus on the challenges, and above all the potential for the expansion of collaborative networking in the region.

The program includes artistic activities and exhibitions as well as tours of heritage sites associated with industrial activity. Those who attend the colloquium will witness it in a cordial atmosphere and human warmth that distinguishes Latin American and Caribbean.

**GREECE**

**GAS-WORKING TOGETHER. ATHENS, 4 MARCH, 2023**

*Hercules Fassourakis and Francesco Antoniol*

Why gasworks? What is special about them? These were questions that Francesco Antoniol asked when we discussed how to locate the right persons to share their experience from other vibrant European gas factories. The idea to gather key persons of such “alive” factories under the cultural umbrella seemed fascinating, under an installation like Athens Technopolis, and submit their experiences of the way these “factories” produce culture and preserve the industrial heritage.

Furthermore, Athens Technopolis celebrates the 10 years of “producing” culture in the same place where light was produced not so many years before. Gasworks’ responsible persons from Italy, Poland, Finland, Netherlands and other countries, shared with us their efforts to keep these hard and dirty industrial places as a vital piece of each city.

The title of the meeting gives two dimensions. Local cooperations like this between VIDA, who conceived that meeting, and Technopolis of Athens who embraced it, can give birth to interesting results like this innovative conference, a start for long discussions. The second is that collaboration between people that care and love the same remit drive to its development. These two dimensions are the aspiration of our team VIDA, Vault of industrial digital archives.

The answer to the above questions is that rarely has such a special
kind of industry monument been embraced from the municipalities and habitants and have given such interesting results. Various examples exist such as cultural parks, museums with extraordinary machines, block of buildings, parks with circular mysterious constructions, etc.

The reasons of these interesting results were presented at the first European Gas Installations’ conference in Athens on 4 March into the Athens Gas Factory. Various specialties who have protected, saved, designed and highlighted the historical memory of these places, were invited to speak. VIDA hopes that this conference will be the start of such specific meetings.

The Industrial Gas Museum in Technopolis City of Athens was inaugurated in 2013, aiming at promoting the old gasworks plant, which used to provide energy and light to the capital for almost 130 years.

The gas production line and the museal path are enhanced through new technologies, 3D projections combined with historical documents and a rich audiovisual material. This unique monument of industrial heritage, the only one to have maintained its entire mechanical equipment in situ, has been transformed into an integral part of Athens.

Having creative learning as a priority, the Industrial Gas Museum offers a series of educational programs, interactive tours, and workshops for children, adolescents, adults, school groups and families. Participants work in groups and stimulate their imagination by discovering, through interactive activities, the history and the importance of the Athens gasworks.

Hercules Fassourakis

Delegates at the VIDA gasworks conference at the DEI Steam and Electricity Power Station, Athens.

TICCIH’S WORKING GROUP ON BUSINESS ARCHIVES

Francesco Antoniol

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News from Spain

After the winter break, the group’s activities got back on track in the spring. We are planning the next webinars: the first will be hosted by the Fundación Anastasio de Gracia in Madrid and at least three more will follow during the year; we will keep you updated on Facebook.

News from Greece

Thanks to the support of VIDA, we went to Athens where we attended the conference on gasometers held at the Industrial Gas Museum. The day after we visited the exhibition This Current Between Us, at the Steam and Electricity Power Station of DEI, the Public Power Corporation at Neo Faliro, which was the first of its kind in Greece. In this exhibition, extensive archival material from the Historical Archive of DEI is in dialogue with new visual works by international artists, paintings, sculptures, visual and sound installations, and videos.

After the visit, we met fellow archivists from the Association for the Preservation of Historical Documents and Cultural Heritage Arxeion.
Taxis which is a collective effort that aspires to actively contribute to preserve, showcase, and give prominence to cultural heritage, emphasizing historical documents and especially historical archives.

After having a fruitful discussion on the state of archival science in Greece, and of business archives in particular, we imagined one of the initiatives to be held together during 2023.

News from Italy

Some alarming news characterizes the archival debate, related to the fate of the Historical Archive of ENEL (the public energy company). Currently hosted in Naples in an office that presents management problems (also for accessing and consulting the documentation), their intention is to transfer the archive to another office, to be identified, outside the region. This action, in contrast with a series of agreements that regulate the presence of the documentary complex in its current location, lacks of serious concern and interest towards the fate of one of the largest and most important Italian business archives. Lately, reassurances about the archive’s fate are arriving from many quarters, but we invite you to keep your attention high!

The official website of the archive.

Contact

BOOK REVIEW

PALAVRAS EM RUÍNAS

Guilherme Pozzer: Lisbon: Astrolábio Edições, 2022

‘Those who experience and feel the ruins fall in love with the inevitable passage of time’ is the final verse of a poem that shares the title with the book ‘Words in Ruins’. Composed of flash fiction stories, poems and illustrations by the author, this collection develops a creative and artistic approach to industrial heritage by exploring themes of memory and experimentation of ruined spaces in contexts of deindustrialisation. In different locations, challenges such as unemployment, precariousness, and the proliferation of abandoned industrial areas create a melancholic and uncertain scenario, but also of great cultural, social, and historical wealth.

Aiming at an audience increasingly curious about the urban and industrial “ruins of modernity”, the book presents a wide range of perspectives on time, space, and memory from those who experienced the heyday and decay of industry. Just as nature, dust, and debris claim abandoned spaces for themselves, fragments of memories claim the rough landscape composed of ruined buildings, chimneys, and pavilions. In the “ruins” of the book’s title, space and time shelter a melancholic palette of human archetypes built of memories that structure nostalgia, hope, despair, dreams, and disappointments.

The reader is introduced to workers, ex-workers and unemployed; owners and managers; young and old; families and lonely individuals, a researcher, and urban explorers; all of them sharing their experiences in industrial spaces. Some, when the industry was still...
operational, others when it had already ceased its productive activities; some experienced the space in its splendour, others in decay, abandonment, and ruin. Through the eyes of those subjects, melancholy, excitement, contemplation, curiosity, and nostalgia are mixed with imagination and senses, with silences, noises, and the memory of ruined places.

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