TICCIH
The International Committee for the Conservation of the Industrial Heritage
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Museo del Acero Horno 3', the blast furnace at the heart of Fundidora Park in Monterrey, Mexico, which hosted the 10th Latin American Colloquium on industrial heritage in October 2023 See page 3. Photo: Miles Oglethorpe

MESSAGE FROM YOUR PRESIDENT

INSPIRING INDUSTRIAL HERITAGE ACROSS THE WORLD

Miles Oglethorpe, TICCIH President

As I write, I have just returned from Mexico where I attended the 10th Latin American Colloquium on the Conservation of Industrial Heritage, which this year was held in Monterrey. I was hugely excited to be finally going to Mexico after having been frustrated in recent years and not been able to accept generous invitations. I was not disappointed, and as is reported later in this Bulletin, it turned out to be a fantastic event, with an excellent programme and an impressive range of speakers from all over the world. Congratulations and a big thank you to everyone involved in making this happen.

It also follows TICCIH's first Hispanic global meeting, following on from our inaugural virtual meeting in 2021. I was fortunate to be able to attend the 'Convocatoria Taller Mapa' on 4th October, and in the process, I caught a glimpse of the outstanding work on industrial heritage that is occurring in the Hispanic world and also the potential that the new digital technologies offer us in bringing together far-flung communities. Congratulations to

all those who organized the event and to those who contributed to it to such good effect. I know that what I saw was the 'tip of the iceberg' and that there is so much more good work being done. To reinforce this point, just before Monterrey, another International Congress was held in October, 'Industrial Heritage, Social Issues and Challenges for New Governance,' which was organized by the Creasur Cultural Center in collaboration with Nudisur and financed by the Biobío Regional Government in Chile, as reported later in this Bulletin. This is yet another thrilling development emanating from Latin America.

Back in Europe, we are observing this activity with considerable envy. We are hoping that in the coming months, we can emulate the achievements of Latin America and organize ourselves, creating our own regional cohesion. At the moment, we are focusing on the opportunity being provided by a conference in Katowice being organized by our Polish colleagues on 16-17 November. 'Industrial Heritage in the Heart of Green Europe' is offering an ambitious programme (see https://www.muzeatechniki.pl/green-europe/), part of which is exploring further how we can establish TICCIH Europe.

The Katowice event is also addressing the hugely important topic of securing fossil fuel supplies for 'Working Industrial and Mobile Heritage' (WIMH). This issue has featured in the Bulletin more than once in recent years. Still, it continues to be a challenge as Europe's green priorities justifiably enshrine more sustainable patterns of consumption. Working with ERIH, Europa Nostra, FIVA, and FedecRail, we are in the process of trying to gauge the quantities of fuel required to sustain our working industrial and mobile heritage. An initial survey was circulated to ERIH members, but we would like to circulate it more widely to gain a broader picture of the demand, and understand the scale of the harm to our heritage that might be done by the potential restriction or loss of fossil-fuel supplies. An ideal specific solution would be securing the ongoing production of a historic coal mine somewhere in Europe. I am hoping that the Katowice event may help us achieve this aim.

Barbara Henderson, the Forth Bridge's 'Author in Residence' promoting her new book at the Bridge during an event held in support of children's charity Barnardos on 22nd September (photo by author)

Finally, much closer to home, the Forth Bridge here in Scotland was immensely lucky to have an 'Author in Residence' over the last year. I am not sure how many other UNESCO World Heritage sites have been blessed by having an author in residence, but we have been

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TICCIH is the world organization on Industrial Heritage, promoting its research, recording, conservation and dissemination and education on industrial heritage. It holds a triennial conference and organises interim conferences on particular themes. Individual membership levels range from $10 to $40 (USD), corporate membership is $65, and student membership levels range from $5 to $10.

There is an online membership form on www.ticcih.org

The **TICCIH Bulletin** is the only international newsletter dedicated to the worldwide conservation of the heritage of industrialisation, and is sent direct to members four times a year. The Editor welcomes all news, critical comment and articles related to our field. Everything published in the Bulletin can be accessed in a searchable Articles Index on the TICCIH web page.

Back issues can be downloaded as a pdf file from the TICCIH web site, www.ticcih.org

very fortunate, and it has been a fantastic last 12 months. Barbara Henderson began her term last year by publishing a highly successful children's book, a fusion of fact and fiction called 'Rivet Boy'. She then wrote a book called 'Our Forth Bridge – Made from Girders'. This comprises chapters that tell the stories of 26 people for whom the Bridge has been a central part of their lives. There can be few books that better demonstrate the way in which industrial heritage directly impacts on and has a life-enhancing influence on real people and real communities. It has been truly fantastic working with her, and we can't thank her enough.

NEWS FROM TICCIH

Inauguration of the X Latin American Colloquium at the horno3 steel museum, Monterrey, 24th October 2023. From left to right: Salvador García-Luna (Fundidora Park, Legal Director), César Morado (Universidad Autónoma de Nuevo León), Ninfa Aurora Romero (CONARTE, Technical Secretary), Miles Oglethorpe (TICCIH President), Melissa Segura (Secretary of Culture Nuevo León), José Luis Márquez (Mayor of Zacatlán de las Manzanas, Puebla), Marta Piñeyro (Steel Museum horno3, Visitor attention), Marion Steiner (TICCIH Secretary General) and Camilo Contreras (TICCIH Commissioner for Latin America and the Caribbean). Photo courtesy of the author

MEXICO

THE X LATIN AMERICAN TICCIH CONGRESS IN MEXICO

Camilo Contreras, TICCIH Commissioner for Latin America and the Caribbean

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"Challenges and networks of collaboration" was the title of the 10th Latin American Colloquium on the Conservation of Industrial Heritage, which was held in Monterrey, Nuevo León, from October 24 to 27, and continued in Zacatlán, Puebla, from October 28 to 29. The more than 60 paper presentations, 2 keynote lectures and 2 reflection panels reconfirmed the valuable change TICCIH International is currently undertaking through its different commissions and working groups, for example revising the organization's statutes and the Nizhny Tagil Charter. The inaugural message of the TICCIH President and Secretary General as well as the first keynote lecture can be found here on the YouTube channel of El Colegio de la Frontera Norte - El Colef.

Regional colloquia such as the Latin American one present specific realities and challenges that will enrich the process of change of TICCIH International and with it the development and consolidation of industrial heritage in the different regions of the world. The Monterrey colloquium and the post-colloquium in Zacatlán demonstrated the urgency of accentuating topics such as governance, the gender perspective, climate change, and the critical revision of concepts in regional contexts giving a turn to the Eurocentric perspective, as well as the linkage of TICCIH International with local actors of the civil society, governmental, private and academic sectors. Such a list represents the challenges for industrial heritage work in our region of Latin America and the Caribbean.

The other great aspect of the X Colloquium was the identification and promotion of collaboration networks. A first concrete result started as a pre-colloquium activity with the online workshop "Collaborative Mapping of Industrial Heritage in Latin America

Panel discussion "Towards an Industrial Heritage Manifesto from Latin America and the Caribbean" with Karen Sanabria (Cuba), Esperanza Rock (Chile), Celina Peña (Mexico), María Julia Burgueño (Uruguay) and Camilo Contreras (TICCIH Commissioner for Latin America and the Caribbean), moderated by Marion Steiner (TICCIH Secretary General), Monterrey, 26th October 2023. Photo courtesy of the author

Site visit to the historical Necaxa hydropower plant, during the post-colloquium in Zacatlán, 29th October 2023. The plant is in continuous operation without any interruption since it was put into service in 1905. Photo courtesy of the author

and the Caribbean" celebrated on October 4 (see the recordings here). During the colloquium in Monterrey we witnessed in a public session that in just 20 days after the workshop, the response from different parts of the region was enthusiastic and with a great future (see the recordings here). The continuous progress of this collaboration can be followed through the project-specific TICCIH International web page: https://ticcih.org/taller-mapa.

With the purpose of expanding the scope achieved in this X Latin American Colloquium, we are happy to share the links of the two panel discussions that we have organized, the first of which was entitled "Towards an industrial heritage manifesto from Latin America and the Caribbean" (see the recordings here), while the second one, which closed the event in Monterrey, summarized the current work of TICCIH and outlined strategies and critical points that a

work program for the Latin American and Caribbean region should address in the future (see the recordings here).

The Latin American Colloquium is an example of what can be achieved with determined collaboration towards the common good in favor of Industrial Heritage. For TICCIH International and the Committee for the Conservation of the Industrial Heritage of Nuevo León it was a great experience to organize the 10th edition of this congress in collaboration with the Secretary of Culture of Nuevo León, CONARTE, Fundidora Park, the Convention and Visitors Bureau, the Municipality of Zacatlán de las Manzanas, Puebla, the Universidad Autónoma of Nuevo León, the Colegio de la Frontera Norte, the Mexican Committee for the Conservation of Industrial Heritage, the Steel Museum horno3, and the National Center for the Preservation of Railroad Cultural Heritage.

Please keep in mind that the call for candidates to host the XI Colloquium on Industrial Heritage Conservation in Latin American and the Caribbean, scheduled to take place in 2026, is still open. Interested parties are cordially invited to get in touch with Camilo Contreras, TICCIH's Commissioner for Latin America and the Caribbean: camilo@colef.mx, and Marion Steiner, TICCIH International's Secretary General: secretary@ticcih.org, for more information.

Aerial view of the San Rosendo Railway Complex on the banks of the Biobío River. Photo: Sebastián Orellano, Creasur Photographical Archive, 2023

CHILE

INDUSTRIAL HERITAGE, SOCIAL ISSUES AND CHALLENGES FOR A NEW GOVERNANCE: THE IV INTERNATIONAL AND INTERDISCIPLINARY CULTURAL HERITAGE CONGRESS IN CHILE

María Esperanza Rock Núñez & Marion Steiner, Creasur Cultural Center

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From 16th to 20th October 2023, the IV International and Interdisciplinary Cultural Heritage Congress was celebrated in Concepción, the capital city of the Biobío Region in south-central Chile. Implemented by the Creasur Cultural Center in collaboration with the Southern Researchers network NUDISUR and supported by TICCIH and other organizations, it was financed by the Biobío Regional Government through the program "International strategies for the transformation of industrial heritage into regional assets" (see also Rock, TICCIH Bulletin N. 101, p. 7).

Located some 500 kilometers south of the Chilean capital Santiago, the Biobío Region marks a historical "frontier" of the Spanish colony and later the Republic of Chile who were expanding their territory ever more southwards into the indigenous lands of the Mapuche people. The region's industrialization has left a deep imprint on its peoples' identities who's collective memories include the experience of Spanish conquest and colonization, the installation of industries and railroads in a sublime natural landscape and the arrival of the modern discourse and lifestyle (see also Rock, TICCIH Bulletin N. 97, pp. 20-22).

Once an important center of economic and industrial activity in Chile, the Biobío Region today pioneers and empowers community-driven preservation and promotion of industrial heritage.

Closing panel on Recommendations for the nomination of Lota as a UNESCO World Heritage SIte, Thursday 19th October 2023. From left to right: Catherine Bertram (Mission Bassin Minier, France), Stefan Berger (Ruhr University Bochum, Germany), Moulshri Joshi (TICCIH Board, India), Kai Weise (ICOMOS Nepal) and the moderators Marion Steiner and Esperanza Rock. Photo: Sebastián Orellano, Creasur Photographical Archive, 2023

Part of the "Arts in Ruins" Festival was the intervention of Teatro La Obra with an extract from "Prometeo Nacional" on stage of the congress venue, the Mural Hall of Concepción's former railway station, which today serves as the Biobío Regional Government's headquarters. The mural by Gregorio De la Fuente, called "History of Concepción," is a social realism work representing the memories of the city. Photo: Sebastián Orellano, Creasur Photographical Archive, 2023

The local workers' communities want to preserve what they feel is their industrial heritage and defend it as a cultural human right. Thanks to the joint efforts between public entities, universities and local communities, the Lota Mining Complex was inscribed on the Chilean Tentative List for UNESCO World Heritage in 2019, and it is also in this context that Creasur and NUDISUR, aiming at supporting the community drive, created the aforementioned program, which was then approved by the Regional Government.

The congress program: experts, discussions and field trips

The congress theme "Industrial Heritage, Social Issues and Challenges for New Governance," developed by Creasur in collaboration with NUDISUR, TICCIH and other partners, brought together over a week 20 invited international experts from around the world, a wide range of national and regional speakers, as well as diverse community representatives of the Biobío region in addition to around 90 local artists and artisans, thus providing a unique opportunity to meet and exchange viewpoints and experiences.

Three days were reserved to the discussion of theory, methodology and case studies between speakers from universities, the public sector and local communities with the organization of 3 keynote lectures, 8 thematic sessions, 3 panel debates, one free papers session and one special session on Lota, which all counted with simultaneous translation between Spanish and English. In addition, the congress' second and its final day were dedicated to field trips around the Biobío region which included meeting and listening to the local communities.

Final act of the agreement signing ceremony between TICCIH and NUDISUR, Wednesday 18th October 2023. From left to right: María Julia Burgueño (TICCIH Uruguay), Mirhan Damir (TICCIH Board), Lucía Sánchez (TICCIH Venezuela), Elis Barbosa (NUDISUR), Marion Steiner (TICCIH Secretary General), Esperanza Rock (NUDISUR Director), Marina Mantilla (NUDISUR), Andrés Torres (NUDISUR), Daniel Stewart (NUDISUR) and Moulshri Joshi (TICCIH Board). Photo: Sebastián Orellano, Creasur Photographical Archive, 2023

Among the main topics addressed during the congress were the conservation, restoration and enhancement of former industrial facilities, community participation in heritage preservation and current challenges facing industrial heritage in an ever-changing world. Many of the international experts who joined the congress from India, Indonesia, Nepal, Egypt, Nigeria, Germany, France, Spain, Cuba, Mexico, Brazil, Argentina, Uruguay and Chile belong to the TICCIH network. All speakers and the congress program brochure can be found here.

A major emphasis was put on discussing critical and decolonial perspectives on industrial heritage, reflecting on the contrasts between the western world and the global south and thus challenging the hegemonic narratives and analyzing substantial differences in the realities of the southern hemisphere. This generated new insights that are not always considered by technical agencies, such as the human perceptions of communities, the impoverishment produced by industrial "progress" and "development" on the local scale, and the social injustice that has increased even more with industrial closures.

The congress closed with a panel on recommendations for Lota and its nomination process for UNESCO World Heritage. The recordings of this panel and the whole congress are available on NUDISUR's YouTube channel here.

The Exhibition and the "Arts in Ruins" Festival

In addition to the congress program as such, a public exhibition on industrial heritage projects and initiatives was set up at the congress venue throughout the week. Key contributions came from former coal mining regions in Germany, France and Indonesia that count with sites that are inscribed on UNESCO's World Heritage list, complemented by exhibits on the Biobío region's industrial heritage and on diverse industrial heritage projects and initiatives from across Chile, Latin America and the Caribbean.

The congress program was further enriched by the "Arts in Ruins" Festival, curated by the Creasur team specifically on that occasion in order to provide an international stage for artists and artisans from the Biobío region. They, through their artistic works and dancing, theater and music performances have an important stake in redefining the region's industrial past through the creation of new narratives that build on the historical legacy while at the same time exploring the future to come.

Training for a collaborative heritage future

Some of the congress' sessions were attended by participants of the training program "Collaborative methodologies for the management of heritage projects with a critical approach," which is an integral part of the government's program on Transformation of Industrial Heritage into Regional Assets. Sponsored by the University of Chile's Master in Architectural Heritage Intervention, it also counts with an official certification (NCh#2728) thanks to the collaboration with OTEC Cultura y Territorio.

The training program is pioneering as it connects national and international experts with the local staff of the 33 municipalities who are in charge of heritage management and development in the Biobío

Region and, in turn, work with the local communities. Through the application of the Collaborative Action Training methodology, the training provides participants with theoretical and practical tools that they need to question dominant narratives and promote the appreciation of local knowledge, experiences and traditions. The aim is to enable the municipal staff and other professionals managing cultural and heritage projects to act in more inclusive and collaborative ways by valuing and considering the voices and perspectives of the communities, in addition to designing final projects that could be executed in the near future.

Future global collaboration perspectives for TICCIH

During the congress, NUDISUR and TICCIH signed an agreement on long-term cooperation in order to continue working together on critical industrial heritage perspectives. The representatives of both organizations who were present in Concepción participated in the ceremony), and a week later, during the TICCIH Latin American Congress in Mexico, TICCIH's President Miles Oglethorpe and TICCIH's Commissioner for Latin America and the Caribbean Camilo Contreras added their signatures.

WORLDWIDE

Grain silo in Vergara, Buenos Aires Province. Ferrocarril del Sud, 1921 (photo by author)

ARGENTINA

AN ARTIFICIAL FAUNA. RAILWAY STRUCTURES IN THE ARGENTINE PAMPAS

Facundo S. López, architect and professor at Facultad de Arquitectura y Urbanismo, Universidad Nacional de La Plata, (FAU-UNLP) Argentina

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The pampas plain of South America is inhabited by a forgotten fauna living in an open and infinite zoo. Perhaps they are already fossils, skeletons covered with the rust and woodworm of a century and a half of history and change, like those "skinless dinosaurs" that the American Land artist Robert Smithson described when he visited Passaic, a suburb of New Jersey. It is a vast compound of constructions that have been left next to the rails, partly in ruins, in a landscape area of profound beauty and elusive richness.

We are referring to human-made constructions, a non-measurable series of utilitarian and industrial structures scattered across the landscape: water tanks, silos, sheds, warehouses, turntables, and workshops, a product of the expansion of the railroad during the second half of the 19th century and the first decades of the 20th. They all have great importance in Argentine history and become a part of the enormous palimpsest the territory can be.

Its loneliness, current uselessness, and condition raise questions about its spatial, material, and technological valuation. In addition to

Railroad warehouses across pampas plain, Buenos Aires Province (First and third photo by Paula Alonso, other photos by author)

Wooden water tank in Unzué, Buenos Aires Province, 1889 (photo by author)

being constructions of immense heritage value, which have not yet been cataloged, surveyed, or inventoried, they acquire more richness as they are located in a particular landscape situation of South America and are quite unique in the world.

That region is the Argentine pampas, an immense alluvial plain with an area equivalent to that of, for example, all of Spain. The railway lines, constructed in Latin America from the importation of British and French technologies and capital, allowed the "colonization" of that vast, seemingly endless territory.

The railway allowed Argentina to take advantage of the leather, fur, meat, and other agricultural production of the plain between 1865 and 1930, entering a territory that before, due to its extension and the flooded and muddy condition of its natural substrate, had not been possible. In this matter, it accompanied a historical process that extended the border of the young Argentine nation towards the south and west, also producing a systematic extermination of the indigenous population.

This complex process that in this country was called the "conquest of the desert" involved the shifting of agricultural frontiers and the founding of advanced towns, often associated with the railheads of foreign-owned railway companies.

When one of those railway lines that entered the Pampas plain is traced today, one finds in the branches, sometimes during hundreds of kilometers, the systematic repetition of the industrial structures that made its expansion possible. Next to the stations, there is always a water tank to supply the steam locomotives. Also, silos and warehouses allowed the storage of skins, hides, grains, and meat for subsequent shipment to the ports and, ultimately, for overseas export. The steam system also required structures such as locomotive rotation plates or turntables and large railway workshops; all spread out presumably "infinite".

These structures, in addition to being valuable for their material, technological, and historical condition, are also rich insofar as they are part - and undoubtedly constitute and define - an immense industrial landscape, not yet entirely explored and constantly threatened by the abandonment and reconversion of economic and physical processes of today's land.

This condition raises a series of questions that are beginning to be discussed in Argentina but are part of global discussions that are not yet resolved: What to do with such a vast series of buildings? Can a process of declaration and protection of this heritage be sought? What tools do third-world countries have to avoid the definitive ruin of these material pieces of great history and culture?

In principle, a path of photographic, visual, and documentary assessment of these constructions has begun, which is synthesized in an ongoing work carried out by the author entitled Una Fauna Artificial (An Artificial Fauna, @unafaunaartificial). It is based on some previous explorations produced in the country by architectural historians and photographers and represents a non-exhaustive survey anchored in the notion of typology.

On the one hand, photographic series were made to show the relationship between plain landscapes and industrial objects. On the other hand, academic research in the field of architecture seeks to define, illuminate, and characterize this type of building. Subsequently, an attempt will be made to spread the knowledge of this series of buildings to gradually gain the necessary support for the consecration of these pieces as "elements" of the practical and industrial heritage of South America and the World.

View on the Noorderpershuis (photo by author)

BELGIUM

ANTWERP UNDER PRESSURE

Pit De Jonge, independent maritime journalist

The Belgian port of Antwerp has experienced decisive traffic and cargo growth throughout its history. Its location as a European trade hub, situated between salt (sea) water and fresh (inland) water, amid vast areas of resource extraction, agriculture, and political superpowers, turned the city and its port into the laboratory of the Industrial Revolution.

Since the thirteenth century, the relationship with water has been crucial for this city. Less obvious is that for almost a hundred years, water was used as a power source for the port. Hydraulic pumps provided working pressure through an extensive network of cranes and lock doors.

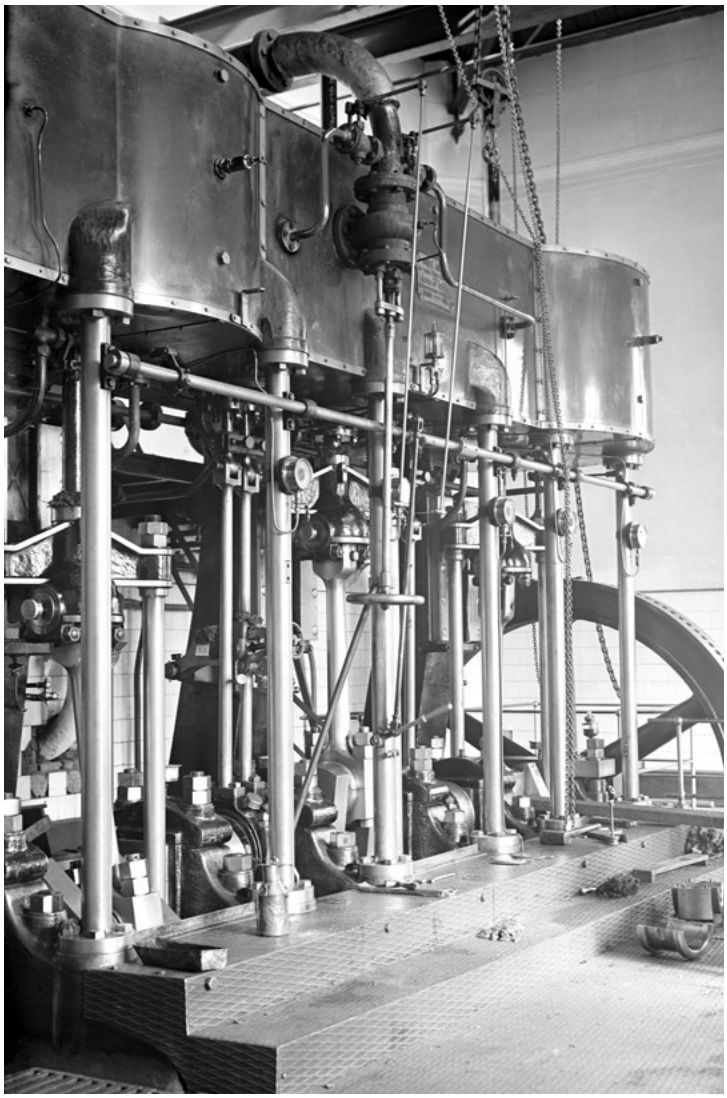
Three sites in the Eilandje district – the Docklands of Antwerp - still bear witness to this, albeit very unobtrusive.

Time for engineering

In 1863, the Port of Antwerp experienced its third growth spurt. 33 years after Belgium's schism from the Netherlands, which occurred in 1830, the blockade of the Scheldt River came to a definitive end. The Republic of the Seven United Netherlands had imposed the blockade in 1587 during the Eighty Years' War and the Spanish occupation of Flanders.

Belgium, from its inception, was a charm for innovative industrial developments. The first steam train service on the continent opened in 1835. Coal and iron mining, the liberal climate, and the dynamic characters of the inhabitants attracted new industries in abundance.

In the port of Antwerp, it became evident that loading and unloading increasingly larger ships with more voluminous cargo could not rely solely on man- and horsepower. The steam engine could provide the necessary power, but not everywhere simultaneously.



View in the Zuiderpershuis (source: Felixarchief)

View on the harbor cranes in Antwerp (photo by author)

Two typical aspects of Antwerp facilitated the development of centralized driving power for cranes, lock doors, capstans, etc. On the one hand, the city council itself managed the port and, therefore, the quays and what happened there. On the other hand, the rapid expansion of the railway system led to a close collaboration between shipping, handling, and storage activities and the transport of goods to and from the interior by rail.

Introduction of pioneering technology

In the early 19th century, the harbour area consisted of the Scheldt quays on the west side of the city, which were straightened from 1877 onwards. In the south of the city centre, the Coal Dock, the Schipper's Dock, and the Stone Dock were excavated. In the north, the 'Petit' and 'Grand Bassin,' ordered by Napoleon Bonaparte in 1803 and now known as the Bonaparte and Willem docks, were destined for commercial shipping after Waterloo.

Simultaneously with the straightening of the quays, in which a part of the medieval city centre disappeared, the first hydraulic power stations arose first on the north and later on the south side on the brink of the residential city and the port area.

The inspiration to use hydropower for operating cranes came from William George 'Baron' Armstrong (UK - 1810-1900). He realized that the power of a rotating waterwheel could be much more efficiently utilized if it could drive vertical pistons under pressure.

In 1852, he used elevated water towers to operate accumulators that provided water pressure for the harbour cranes in Grimsby, England. These waterpower applications were hugely successful, both in England and far beyond.

Pressure from underground

Under pressure from private companies, the Antwerp City Engineer, Van Bever, investigated how the hydraulic systems in those foreign ports worked and what advantages they offered.

The report of a second round of research in 1873 revealed two options: a steam solution exclusively for cranes or a hydraulic solution that could operate many more systems simultaneously.

The Noorderpershuis, the Northern Hydraulic House, was the first hydraulic power station, built in 1877-1878 according to the design of city architect Gustave Royers. He collaborated with W. G. Armstrong, who had designed a water pressure network for the Antwerp marshalling yard railway station. The network not only operated heavy equipment but also capstans, train exchanges, and so on.

Powerplant

From the Northern - and later also the Southern Hydraulic House, a 24-kilometer-long underground pipeline network departed, on which the pumps exerted a permanent pressure of 50 kilograms per square centimetre on the cold water. This high-pressure water passed through underground cast iron pipes, later replaced by seamless steel ones. The pipe network has never been removed.

Initially, steam engines provided the power for the presses, which were only replaced by electric systems in 1950.

From the start, there was great enthusiasm for the functionality of the first hydraulic 140-ton lifting jack and the converted 40-ton crane. Using a piston with one or more chain pulleys attached, water pressure sets the hoist in motion, which could cover twice the distance of the piston. By mounting multiple chain pulleys side by side, the lifting distance increased.

By letting water out of the cylinder, the crane operator lowered the load. Armstrong called the hydraulic cylinder with the chain wheels a 'jigger,' which quickly became a term in the slang of the Antwerp dockworkers.

The Northern Hydraulic House

This standalone complex was erected between the Kattendijkdock-Oostkaai, India Street, and Bombay Street. The contrasting layers of dark and light sandstone and the symmetrical bays gave the building a significant cachet of importance.

The front building opposite the Kattendijkdock housed offices and residences for the engineer and chief machinist. The engine room with eight steam boilers was located in a side building on India Street. There was also a water tower for the two accumulators. Initially, train wagons drove through the central high gate to deliver coal.

The 28-meter-high chimney of the boiler room was demolished during the transition to electricity in 1930-1932. The tower-shaped fourth bay originally contained two accumulators with ballast boxes. The ballasted floating lids of these vertical cylinders, approximately 45 cm in diameter, kept the water under permanent pressure. These accumulators were partially demolished in 1930 and definitively disappeared in 1975.

The system provided power for numerous movable elements in the northern port area, the area that we now generally call Het Eilandje.

The cranes on the quays and in the warehouses, various lifts but also winches and capstans, the sliders of the sewers, the elevators, swing and roller bridges, lock gates, and so on were all connected to it. In 1910, the Northern Hydraulic House operated 156(!) cranes weighing 1.5 to 2 tons, five cranes of 10 to 40 tons, a train wagon lift, 12 bridges, and much more.

The Northern Hydraulic House went out of service in 1976 and has been a protected monument since 2007. Since 2017, the An-

twerp Brewery Company has brought life back to this complex, including a modern brewery and café in the former workshops. It is open for visits. And tasting.

Nassau Bridge operates on water pressure

Within walking distance of this Northern Hydraulic House lies the Nassau Bridge, one of the remaining witnesses connected to the water pressure system. The north-south oriented bridge covers the deteriorated lock doors at the narrowing between the Bonaparte and Willem docks.

The original bridge from 1822 was thoroughly renovated for the first time in 1867. In 1912, a second repair followed, and in 2004, it was completely rebuilt as a riveted replica, albeit with an electric engine. Initially, the water pressure system was applied horizontally: the cylinder drives a horizontal quadrant gear that opens the bridge westward for maritime traffic. The operation is carried out from a small building in the typical eclectic style of Antwerp architecture.

A few steps further away, the original hydraulic east-west oriented Willem Bridge from 1869 lies languishing. It connected the two Napoleon quays of both the Bonaparte and Willem docks. Despite the precarious condition of the latter, both bridges are recognized by the Agentschap Onroerend Erfgoed (Flanders Heritage Agency) as architectural heritage and are protected monuments.

Collection of harbour cranes

In 1974, the City of Antwerp decided to preserve one representative harbour crane from the vast series that the port possessed and still possesses. The gathering place for the cranes is the Rijnkaai, within walking distance of both the Northern Hydraulic House and the Nassau Bridge. Currently, there are 15 cranes. The oldest dates back to 1907, while the youngest was built in 1963. They were constructed by fourteen different builders from five countries.

After the privatization of the Antwerp Port Authority in 1997, the management of the cranes was transferred to the city. Five years later, they were granted the status of 'Monument Without Economic Use' (sic), which resulted in releasing funds to protect them from vandalism and restart the restoration works.

The policy vision of the then curator of the shipping department of the *Museum Aan de Stroom (MAS)* was translated into a concrete action plan in 2006. This marked the actual start of the most representative collection of harbour cranes in the world. Not with the largest specimens but a collection with the broadest timeframe and applied technologies, from manual to hydraulic to electric.

The crane collection includes the hydraulic Portal Crane 111 from 1907 and the Portal Pyramid Crane 97 from 1912. The Portal Cranes appeared in 1882, mainly on the Scheldt quays in Antwerp-Zuid, and were supplied by French constructors who quickly mastered hydraulic technology.

The crane collection on the Rijnkaai is easily accessible. They bear an ID label with basic information and a QR code for additional online information. During special heritage events such as Open Monuments Day, it is possible to climb into the control cabin of the cranes with dedicated assistants and guides.

Wide-legged cranes

In 1907, no fewer than 310 water pressure-driven cranes handled all kinds of goods in and out of ships in the port area of Antwerp. But secretly, the decline of this system had already begun three years earlier, with an experiment in which a crane was equipped with an electric engine. From 1908 onwards, only electric cranes were installed on the new quays of the rapidly expanding port docks. The gradual transition stopped on December 31, 1975, when the last 34 water-pressure cranes went out of service.

The author thanks Joost Van Deuren for the support in writing this article.

CANADA

DIGITIZATION CONTRA ERASURE: BONNE-ESPERANCE'S INDUSTRIAL FISHING HERITAGE

Francisco Rivera, The Archaeology Centre, University of Toronto, Canada

How do we study the erasure of industrial heritage? How do we understand the idea of heritage when little or nothing remains of the monumentality that we generally associate with industrial vestiges? How do we make visible a heritage despite its absence? We have been working on these questions through a research project in Bonne-Espérance, a municipality in Quebec's Lower North Shore, Canada.

Historically known as a region of abundant maritime resources, Bonne-Espérance was, since the mid-nineteenth century, the place of fishing development on an industrial scale. Examining Bonne Espérance's industrial heritage allows us to understand its particularities and historical specificities by examining concepts such as ephemerality, transience, and nostalgia. These notions help us investigate the role of the recent past and the place that the erasure of the remains of this industrial past currently holds for the residents of Bonne-Espérance. In other words, our goal is to materially reassemble the echoes of a history that continues to have repercussions today.

Archaeological fieldwork focused on Rivière-Saint-Paul, a small village in Bonne-Espérance municipality. It consisted of a visual inspection and photographic survey of architectural features and material remains of three industrial sites: Old Plant (EiBk-5), Factory Point (EiBj-42), and Whiteley Fishery (EiBk-55). Based on drone photography, we prepared photogrammetric plans to provide basic topographical information for each site. Fieldwork was stimulated by the

Old Plant, Bonne-Espérance (photo by author)

local Whiteley Museum's interest in exploring the region's industrial history for further use in the museum's exhibitions and local tourism and school programs.

The history of the fishing industry in Quebec is part of the broader context of developing maritime extractive industries in northeastern Canada. In particular, the historical past of Bonne-Espérance is known from family memories and early archival sources, such as the travel notes of Jean-Baptiste-Antoine Ferland (1805-1865) and Charles Carroll Carpenter (1836-1918), who visited the region during the second half of the nineteenth and early twentieth centuries.

The visual inspection of the recent past of Rivière-Saint-Paul is a continuation of the archaeological research carried out in this region by Dr. William Fitzhugh and the Arctic Studies Center of the Smithsonian Institution, Washington DC, and Dr. Brad Loewen of the Université de Montréal, Canada. For over 25 years, these researchers have been developing long-term research programs to understand the trajectory of human occupation on this territory from prehistory to the 18th century. Our research thus complements previous work, limited to mapping and photographing three nineteenth-twentieth century industrial sites in the Rivière-Saint-Paul archipelago. As this fieldwork only involved a visual inspection of the sites, a photographic survey was carried out using a drone to produce topographic and photogrammetric plans of the sites and 3D models of buildings and objects associated with them.

Old Plant

The site known locally as Old Plant (EiBk-5) is of interest to us because of its ubiquity in the collective memory of Rivière-Saint-Paul residents. The site was a former distribution center for goods and merchandise that arrived by boat on the Lower North Shore. It features a wharf, remains of loading and unloading facilities, a building with engines for power generation, and the remains of dwellings for the family managing the arrival and departure of boats. Around the site, fieldwork centered on a photographic and cartographic survey of visible remains of the abandoned wharf and scattered structural steel, wood, and concrete vestiges.

Factory Point

Factory Point was an industrial settlement from the mid-nineteenth century. In 1856, there was a foundry for the manufacture of cod oil. The remains of a former guano factory can be seen at the northern end of the island. Traces of rails and pits are visible, as well as building foundations and a ruined wharf extending northwards from the site. Interviews conducted in Rivière-Saint-Paul indicate that the site was abandoned in the 1950s. According to some oral sources, the place belonged to the Job Brothers, a company originally from Newfoundland, but no historical source has confirmed this assertion. The idea of the Job Brothers property probably arose from the fact that, in the late nineteenth century, this company was

Factory Point, Bonne-Espérance (photo by author)

associated with William Whiteley's (1834-1903) thriving fishery in Bonne-Espérance Island (EiBk-55).

The visual inspection of Factory Point was aimed at recording all remains and materials visible on the surface. In addition, a drone survey was carried out to produce orthophotographs and a Digital Elevation Model (DEM), enabling the evaluation of what remains invisible in the field and the production of topographical maps. One of the most visible remains is a metal structure corresponding to an engine or turbine, which, according to oral sources, dates from the late 1940s.

Finally, fieldwork also focuses on the visible historical and contemporary remains at Pump-House Cove, north of Factory Point, where drinking water was collected and distributed to on-site residents.

Whiteley Fishery

During the initial period of industrial activity in the nineteenth century, English and French-speaking pioneer settlers occupied the area around Bonne-Espérance, a period described by missionary Charles Carroll Carpenter, who arrived in 1856 (Bilodeau n.d.). In the mid-century, William Henry "Bossy" Whiteley (1834-1903) bought the fishing port of Bonne Esperance from James Buckle, one of the first settlers of the region. Located on a steep, rocky coastline at the southern end of the Bonne Esperance Island, Whiteley operated the fishery since 1855. Originally from Newburyport, Massachusetts, Whiteley came to Labrador in 1850. A few years later, he founded the Bonne-Espérance fishery, and by 1856, the fishing establishment was already flourishing.

In 1880, Newfoundland-based Job Brothers of St. John's invested in the Bonne Espérance fishery, buying its catch. However, in 1895, they ran into financial difficulties. Whiteley bought out their interest in the Bonne Espérance fishery, and the business continued to grow. The following year, he operated a ship transporting dried cod directly to European markets. Looking at the numbers of cod traps and catches, it is sure to say that William Whiteley and the Colony of Bonne Espérance were at the height of their success in the 1890s.

William Whiteley died on August 18, 1903. With the Great War, Whiteley's sons, now operating the fishery, faced economic challenges. George Whiteley sold the fishing station to Montreal's Standard Fish Company in 1945. Eventually, operations ceased around 1960, and the buildings quickly fell into disrepair. Some buildings remained standing despite winter storms, notably the Whiteley House and the wharf. Still, in the 1970s, the former industrial buildings were looted, and others were eventually burned down.

Around the Whiteley fishery (EiBk-55), fieldwork focused on a photographic survey of the visible remains of the wharf, the Whiteley house, and the scattered structural wood and concrete remains. A photographic and cartographic survey of the network of trails on the southern part of the island was also carried out.

Conclusions

In Rivière-Saint-Paul, historical and archaeological sites are heritage sites of high symbolic value, and the Whiteley Museum encourages their study and protection. Each site is a critical reference point for personal and collective memories of Rivière-Saint-Paul residents, referring to varying periods of the region's social and economic historical trajectory. Although the sites are abandoned, eroded, and poorly preserved, they are still anchored in the collective memory as nostalgic references to the recent past. Industrial sites are considered high-value cultural assets, subject to plans for tourism projects.

Whiteley Fishery (date unknown) © Library and Archives Canada.

Fieldwork centered on visual identification, without intervention, of three industrial and contemporary sites in Rivière-Saint-Paul, allowing us to integrate material data with oral history and historical sources and to raise research questions concerning the social relationships between the various agents involved in nineteenth and twentieth-century industrial fishing activities. Research questions will enable the development of new projects in the region's recent past.

Despite the erasure of the industrial vestiges, the gradual and sustained establishment of industries in the region from 1860 to 1960 makes Rivière-Saint-Paul a significant place for the archaeological analysis of the construction of practices and industrial endeavors. The village of Rivière-Saint-Paul and the Whiteley Museum have provided material support for the project, which is vital to its success. Both are keen to see the continuation of archaeological projects that will make the region's recent history more visible.

3D Collection

An online 3D collection of Bonne-Espérance sites and objects can be found in the following link: https://sketchfab.com/frivera-maro/collections/bonne-esperance-industrial-heritage-b8b2142d-376d40699260ae3690db2c2f

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CHILE

OIL INDUSTRY IN CHILE. HERITAGES OF NATIONAL DIMENSION

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The discovery of oil deposits that could be exploited in the extreme south of Chile, specifically on the Island of Tierra del Fuego, triggered a process with unsuspected territorial, urban, economic and environmental consequences that was fundamental for its industrialization.

After initial private searches, mainly between 1920 and the end of the 1930s, the explorations carried out by the Chilean State in the early 1940s were directed by the Development Corporation (CORFO), which had been created in 1939, as the Chilean simile of the Italian Istituto per la Ricostruzione Industriale. From the discovery of hydrocarbons on December 29, 1945, the Chilean State drew up and materialized a plan for the development of the oil industry, which involved practically the entire national territory, and which was expected to allow both the energy self-sufficiency of the country and the support for the industrialization of the developmental policy of the 1930s.

To put the oil industry into operation in the country, the Chilean State had to carry out a series of institutional, legal and infrastructure changes. Firstly, specific legislation had to be generated regarding the reservation of deposits for the State, and also in relation to

Sketch of oil industry facilities in Chile in the 1950s. Source: ENAP. (1957). Memoria ENAP. p. 13

the different stages of the industrial process, such as exploration, transformation, transportation and distribution of the products. Secondly, a specific institutional framework was required, which was faced with the formation of the National Petroleum Company (ENAP) in 1950, which assumed responsibility for all activities linked to the oil industry, which was in force until 1981 when it was divided into subsidiaries that addressed different aspects of the production process, some of which were later privatized. Thirdly, a support network was required for the different dimensions of the industrial system, which translated into the construction of productive and connectivity infrastructures, such as pipelines, roads, maritime routes; of definitive and provisional human settlements, and of architectural works, mainly housing and equipment; which were expressed in maritime and land terminals, in production plants and refineries, in workshops, shipyards, ports, airfields, camps, and residential complexes in different regions of the country. These works determined, in addition to the articulation of the territories throughout the country, the formation of a human group linked to the new industrial activity with a marked sense of recognition and belonging.

Manantiales, first productive well (1945)
National Monuments declaration 556/1976
Source: Universidad de Santiago Archives

Campamento de Cerro Sombrero (1958)
Declaración MMNN 421/2014
Source: Universidad de Santiago Archives

Manantiales, first productive well (2016)
Source: Ambrosetti Garrido Archives

Surtidor al acceder a Sombrero (2023)
Source: Ambrosetti Garrido Archives

Historical and current images of the sites that are officially listed as monuments. (Compilation by author)

The installation of the oil industry in Chile implied the erection of a specialized industrial system where different regions assumed specific roles in its framework. Thus, a productive network was configured in a large part of the country, which involved the regions of Antofagasta, Valparaíso, Metropolitana, O'Higgins, Maule, Biobío, Aysén, and Magallanes, in a distance of four thousand kilometers, turning them into production territories, industrialization and processing territories, distribution territories, and consumption centers; and particularly, the constitution of a series of industrial landscapes, in the Magallanes and Chilean Antarctic Region, on the eastern slope of the continental section and in the northern area of the Tierra del Fuego Island; in the Valparaíso Region, with the Quintero-Concón-Salinas industrial axis, and in the Biobío Region, reinforcing the San Vicente-Talcahuano industrial sector. These were articulated through infrastructure and communication systems, which allowed the circulation and availability of raw materials and their derivatives, in a relationship over the territories of deployment and requirement.

The industrial deployment was thus based on the construction of a network of infrastructure, nearby productive and residential facilities, or in the production areas themselves, and on a support system based in the cities closest to the productive facilities, such as Punta Arenas, Concón and Concepción. This development occurred late in the international context with two cycles, a first period between 1945 and 1960, given by the discovery and the culmination of production on land, and a second stage, marked by underwater exploitation in 1977 and its productive closure at the beginning of the 21st century.

In heritage terms, the complex network of works and systems has had unequal treatment. Today only some of these elements have heritage consideration in the form of declarations of national monuments. These are the first productive well, located in the Manantiales sector, declared in 1976, and the Cerro Sombrero camp, declared in 2014, both located in the producing areas of the Magallanes Region. These are declarations under conceptions of heritage as singular, isolated objects, without context, nor inscribed in complexes that explain their values. These are commemorative monuments without use value or sense of assembly, the first as a witness to the discovery and the second as evidence of modern architecture related to the residential dimension and equipment of industrial activity.

Location and the current physical conditions of oil camps in the Magallanes Region. Map and photographs by the author

The works of the oil industry produced an impact on various dimensions of the inhabited space, on ways of life, on its architecture, on landscapes, on cities and on the regions linked to the activity. These are objects and legacies that are both in use, since they are still part of the oil industrial system in Chile, as well as elements and systems that have lost their productive meaning and are in different states of preservation.

It is precisely these dimensions that make it complex as a phenomenon. A heritage simultaneously in use and abandoned, which is amplified by its multiple material scales: of architectural objects, of urban structures, of infrastructure networks, of industrial landscapes, of exploited and organized territories; those that speak of a diverse legacy and both positive and negative connotations.

The oil industry in Chile is, in heritage terms, a complex construction, but it introduces a particular difficulty for its understanding, valuation, protection and eventual management, as is the absence of communities interested in its valuation. Although these are objects of importance in the productive framework, or of relevance in the construction of a narrative related to the oil industrial activity in the country, their survival is difficult because of the lack of social actors interested and organized in the implementation and value of their memories and objects.

The bulldozing (removal) of Heliopolis tram (Metro) rails, Al-Hegaz Street, Heliopolis- Cairo, September 2019, Courtesy of Nouran Ahmed.

EGYPT

ON THE LEGACY OF SHUBRA'S ARCHIVES – SALAM TRAM PROJECT

Mina Ibrahim, Founding Director, Shubra's Archive

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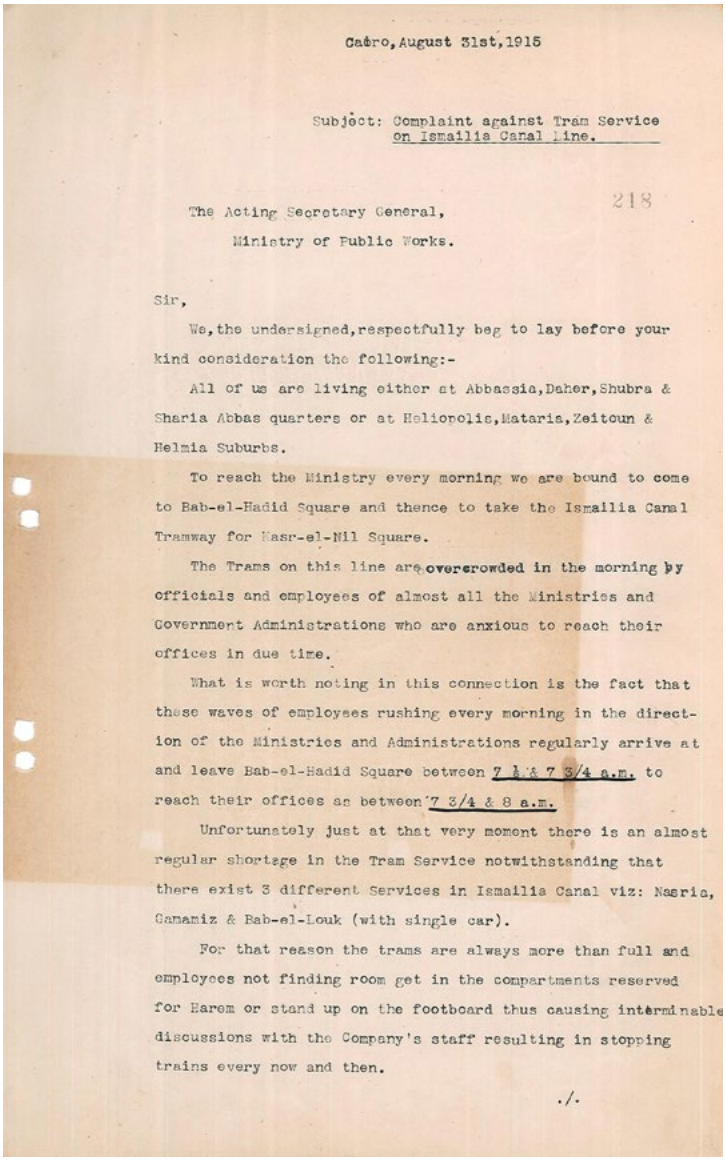
By the end of 2022 and the beginning of 2023, SARD for History and Social Research (Shubra's Archive) released the first outputs of its inaugural project, "Salam Tram: Archiving the Lost Tracks of Cairo's Tramways". The results include an edited book, an eleven-episode podcast, a short graphic story, and an exhibition that interacts with community members. This is in addition to a catalog that manifests the different takes Shubra's Archive's team members had for the collected secondary sources, paper archives, and oral history interviews. While these outcomes present groundbreaking approaches that fill gaps in both the study of Cairo's modern history and the unfortunate archival atmosphere in Egypt, they are initial steps for our team's passion and ambitions for interdisciplinary archival work. In this short piece, I reflect on Shubra's Archive journey during the last two years since its establishment (May 2021- May 2023) and how its first project can contribute to a future, broader archival theme. Moreover, Shubra's Archive team hopes that the upcoming phases of the "Salam Tram" project can benefit from and add to the research scope of documenting Egypt's industrial heritage, particularly by giving more importance to people's everyday lives and relationships.

During the first half of the 1990s, the tram tracks in Cairo's northern neighborhood of Shubra were uninstalled in parallel with the opening of the Red Metro Line (Line 2) that connected Shubra to Cairo's southern suburbs and Giza governorate. Earlier, other lines were removed from Cairo's streets, leaving space for other faster and more efficient means of public and private transportation. But what contributed to the slowness and incompetence of the tramlines needed clarification because, as it will be shortly noted, it has never been a natural process. Indeed, the circa 120 years (1896-2019) that witnessed the lifespan of Cairo's tram cars requires a deep analysis of the complex narratives between and amongst the relevant authorities, the employees, and the passengers together with the other Egyptian (and foreign) citizens whose lives were affected by the trams geographies, soundscapes, and socio-economic interventions. Such a huge endeavor needed not only a collective effort but also a participatory approach that is keen to share the

outputs with the inhabitants of Shubra and other neighborhoods in Cairo. This is where the biases of Shubra's Archive lie; that is, to take the archiving process as an open-ended inquiry that cares about and learns from people's feedback, critiques, and suggestions.

In May 2021, we started at Shubra's Archive headquarters an intensive learning program that grappled with ethnography, oral history, archival work, family history, and urban history. A couple of months later, the team members had to select a research topic that we could collectively research, given our different academic backgrounds, and that could connect Shubra to other districts so as not to turn the former into an 'isolated island.' We started with the moment when the tram lines disappeared. How can we (Shubra's Archive team members as well as Cairenes) make sense of the absence of vehicles that were integral components of the (visual) representation of our city in movies, soap operas, songs, novels as well as academic writings? Hence, we started by collecting secondary sources that reflect various views of Cairo's tramways. It was then the first of a three-part methodological process that we also seek to apply for other future projects. We collected secondary sources that reflect various views of Cairo's tram. We returned to the middle of the twentieth century in particular, when tramlines earned attention in Egyptian cinema and literary scenes, and tramcars became central components of plots and scenarios based on true stories. Notably, Shubra's Archives team considered this phase a "midway" that needs to be complemented and supplemented by what happened when the people of Cairo (un-)welcomed and (un-)quietly divorced the first modern public transportation in Egypt's Capital. While the secondary sources are essential to collect fragments about Cairo's lost tracks, they do not document the early years of the tramlines. Thus, we were lucky to stumble upon around 900 documents at one of Cairo's second-hand book markets. The documents belong to the Belgian tram company "The Société des Tramways du Caire", established in 1885. They are letters, contracts, maps, and tables shared between the company, the Egyptian government, and ordinary citizens. They manifest complaints, problems, and violations associated with the everydayness of the trams, as well as the various forms of legal, political, and social consciousness that resulted from the urban changes at the turn of the 19th century. Through these documents, Shubra's Archive team realized that the uninstallation of the tram lines was a long process that had ironically begun when Cairo's residents initiated their interactions with the tram company. Put differently, while the tramlines were introduced as part of a broader 'modernization' process in Cairo, they left Cairo's streets because of another ongoing modern discourse of 'development'. Shubra's Archive made sure to trace the heterogeneity of people's opinions about the trams and their situated historical contexts between the two modernities.

Against the backdrop of our polyvocal method, we have understood that the collected paper archives and the secondary sources still need the support of oral history interviews. The latter is necessary as they highlight the last years of the tramlines and construct the unwritten scraps that were intentionally or unintentionally excluded from the tram's known history. During four months of extensive fieldwork, the team members of Shubra's Archive started by interviewing each other and then their family members. We interviewed former employees and users of Cairo's tram. We learned from and about their opinions about the policies that gradually ignored both maintaining the tramcars and, more importantly, improving the conditions of the workers until they altogether became unable to cope with significant concurrent changes in Cairo's landscapes and rising living standards.



Cairo, August 31st, 1915

Subject: Complaint against Tram Service on Ismailia Canal Line.

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The Acting Secretary General,
Ministry of Public Works.

Sir,

We, the undersigned, respectfully beg to lay before your kind consideration the following:-

All of us are living either at Abbassia, Daher, Shubra & Sharia Abbas quarters or at Heliopolis, Mataria, Zeitoun & Helmia Suburbs.

To reach the Ministry every morning we are bound to come to Bab-el-Hadid Square and thence to take the Ismailia Canal Tramway for Kasr-el-Nil Square.

The Trams on this line are overcrowded in the morning by officials and employees of almost all the Ministries and Government Administrations who are anxious to reach their offices in due time.

What is worth noting in this connection is the fact that these waves of employees rushing every morning in the direction of the Ministries and Administrations regularly arrive at and leave Bab-el-Hadid Square between 7 ½ & 7 3/4 a.m. to reach their offices as between 7 3/4 & 8 a.m.

Unfortunately just at that very moment there is an almost regular shortage in the Tram Service notwithstanding that there exist 3 different Services in Ismailia Canal viz: Nasria, Ganamiz & Bab-el-Louk (with single car).

For that reason the trams are always more than full and employees not finding room get in the compartments reserved for Harem or stand up on the footboard thus causing interminable discussions with the Company's staff resulting in stopping trains every now and then.

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Sample of the paper archives collected during the "Salam Tram" project.

To conclude, urban developments in Cairo have dramatically increased over the last twenty years. Under the rubric of urban planning and renewal, massive spatial and socio-cultural shifts have occasioned a rapid increase in real estate investments and infrastructure projects. In the wake of such transformations, both tangible and intangible heritage have systematically been collaterally damaged, culminating in the erasure of communities, their histories, and cultural practices.

Building on the "Salam Tram" project, Shubra's Archive seeks to expand the scope of creating public histories and archives through direct participation and involvement of community members in the management of heritage as well as the making of archives of their lives in the neighborhoods. Through oral histories, ethnographic research, and the collection of documentary material, Shubra's Archive intends to work closely with community members to collect archival documents that hitherto are not usually considered valuable archival materials (such as personal collections of material culture, photographs, diaries, and letters). Moreover, we are concerned with the intangible heritage that has been silenced by the marginalization of everyday experiences from historical narratives documenting the shifting landscape in Cairo. We look forward to securing logistical and financial support from national and international entities to continue working on archiving the tramlines and other social phenomena to do justice to the rich histories of Cairo's neighborhoods and their inhabitants.

Aerial view of Component A3. Coal Processing Plant Compound (photo by author)

INDONESIA

SAWAHLUNTO: FROM GHOST TOWN TO WORLD HERITAGE SITE

Sevly Eka Putri

—

Sawahlunto, located in West Sumatera Province (Indonesia), is a small town that was created after the coal exploration by the Dutch Indies in 1886. Since the industrial revolution occurred in Europe and there was a need for an energy source for machinery, several Dutch geologists conducted research into the interior of Minangkabau (then known as the Padang Plateau), as commissioned by the Governor General of the Dutch East Indies. The first research was conducted by Ir. C. De Groot van Embden in 1858, then continued by Ir. Willem Hendrik de Greeve in 1867, who discovered 200 million tons of coal around the Batang Ombilin stream, one of the rivers in Sawahlunto. Since this research was announced to Batavia in 1870, the Dutch East Indies government began planning the construction of facilities and infrastructure that could facilitate coal exploitation in Sawahlunto.

Sawahlunto began producing coal in 1892. Along with that, this town became a residential area for mining workers and continued to de-

Aerial View of Old Town of Sawahlunto (photo by author)

velop into a small town with a population primarily of employees and miners. The town had completed all facilities, such as a mining administrative compound, government building, power plants, health facilities, a mining school, etc. Furthermore, Sawahlunto became a town in 1888, precisely on 1st December, later designated as the Sawahlunto Anniversary.

In 2000, coal production decreased, and many people lost their jobs. They chose to leave Sawahlunto to look for new opportunities. Sawahlunto almost became a ghost town. The government of Sawahlunto had the idea to create a new town, from a mining town to a heritage tourism town. In 2004, the preservation works began. They started revitalizing the soup kitchen complex that became the Gudang Ransum Museum, Sawahlunto Station became the Train Museum, and so on. After the long preservation journey, the Sawahlunto government realized that tourism wasn't the true goal of the preservation works. This heritage should be preserved for the education of the next generation. They should know the history of their town. And finally, in 2019, we became part of UNESCO as World Heritage Site. In 2015, Sawahlunto was included in the tentative list, but the history of coal exploration has not been fully mapped.

Since the discovery of coal, Sawahlunto, which was originally a remote area, has become an advanced and modern town for its time. This also has an economic impact on the surrounding area. With the discovery of coal in the Ombilin River of Sawahlunto, the Dutch East Indies Government then initiated a linkage project; mining administration infrastructure, construction of a railway line and construction of the Emmahaven port. Furthermore, this project is the basis for Ombilin Coal Mining Heritage of Sawahlunto as world heritage site inscription in 2019.

These three areas are an inseparable unit to describe the whole story of coal mining in Sawahlunto. This linkage project shows the development of pioneering technology in the 19th century which combines European mining engineering knowledge with local environmental wisdom, traditional practices and cultural values in coal mining activities owned by the people of West Sumatra. This systemic relationship between the coal mining industry, railway system and ports play an important role in economic and social development in Sumatra and in the world. The legacy of the Ombilin Coal Mining Heritage of Sawahlunto illustrates the dynamic social and cultural interaction between the eastern and western worlds, which succeeded in transforming remote mining areas into dynamic and integrated urban areas.

The Ombilin Coal Mining Heritage of Sawahlunto consists of 3 areas;

- Area A: Sawahlunto Mining Site and Company Town (Sawahlunto Municipality)
- Area B: Railway Facilities and Engineering Structure (Sawahlunto Municipality, Solok Regency, Solok Municipality, Tanah Datar Regency, Padang Panjang Municipality, Padang Pariaman Regency and Padang Municipality)
- Area C: Coal Storage Facility at Emmahaven Port (Padang Municipality)

Area A. Sawahlunto Mining Town has 6 components; A1. Soengai Doerian Mining Site, A2. Mining School, A3. Coal Processing Plant Compound, A4. Ombilin Railway Transportation, A5. Company Town, and A6. Salak Power Plant and Rantih Water Pumping Station.

All components consist of 45 significant objects. Most of the objects are in a good condition and utilized as Museum, Office, School etc. For more stories you can visit our 6 museums; (1) Goedang Ransoem Museum, (2) Train Museum, (3) Soero Coal Mining Tunnel Museum, (4) Music Museum, (5) Painting Museum and (6) Ombilin Coal Mining Documentation and Archive Museum. All the museum uses an attribute of the World Heritage Sites.

Gudang Ransum Museum has a giant collection of cooking equipment, and the Soero Coal Mining Tunnel Museum has a story about the mining process in Sawahlunto. In these two museums, we also can see the history of forced labor. To support the smooth running of mining activities, the Dutch East Indies government brought in forced laborers from all prisons in the Dutch Indies. They were placed in barracks called Tangsi. These workers became known to the public as 'chained people' because when they left the barracks for the mine shaft, their feet, hands, and bodies were chained. These 'chained people' had tattoos on their bodies for identification. When they died, the number written on their tombstone was written, not their name. The graves of the 'chained people' are located in Air Dingin. The number of forced laborers in Sawahlunto reached more than 4500. Apart from forced laborers, the mines also employed contract laborers and casual laborers. In July 1937, 500 workers were brought in from Java.

Collections of Gudang Ransum Museum photo by author)

Since the laborers came from different backgrounds, like Java, Batak, Bugis, Madura, and Minangkabau, they had difficulty communicating. Then, the acculturation among the miners and the colonials led to the creation of a new language called Bahasa Tansi. In 2018, Bahasa Tansi was inscribed as intangible cultural heritage of Indonesia.

The town itself is a living museum, the best way to enjoy the sites is doing walking tour through the old town of Sawahlunto. Make an interaction with local, they will tell you about the history of the town and you can find how wonderful the Bahasa Tansi is.

View on the Amideria Chiozza (FAI)

ITALY

THE RECOVERY OF THE CHIOZZA STARCH FACTORY: A SUCCESSFUL EXAMPLE OF THE SYNERGY BETWEEN VOLUNTARY WORK AND PUBLIC INITIATIVE

Massimo Preite, TICCIH Board

The Chiozza starch factory (Amideria in Italian) is located in an agricultural area in the municipality of Ruda (Udine). Its location is explained by the presence of an irrigation ditch, still in existence today, which provides an abundant supply of spring water that can be used as motive power. The first nucleus of the factory, built in 1865 in Friuli, when it was still part of the Hapsburg Empire, was dedicated to the production of starch, a product originally used for the packaging of cloth and fabrics (to make them stiff) and later used in other production sectors such as tanneries, paper mills, cosmetics, pharmaceuticals, food, etc.

Luigi Chiozza, the founder of the company, studied chemistry in Geneva and then in Paris, where he had the opportunity to work with Luigi Pasteur, with whom he formed a close friendship. On the basis of the knowledge acquired, Chiozza, in collaboration with Pasteur, who moved to Ruda between 1869 and 1879, developed an innovative system for extracting starch from rice, for which the Austrian Ministry of Trade granted an "*exclusive privilege for the duration of 6 years*" for the use of the new industrial process. This allowed the plant to produce a particularly high quality of starch, which not only conquered the domestic market but also became an export product to Central European markets and the United States.

The plant is very complex and consists of several buildings built in two distinct phases. The first phase comprises the factories where production was carried out using hydraulic power between 1865 and 1902. The second phase began in 1902 with the inauguration of the new production plant, equipped with new boilers and powered by a steam engine that still exists today. The extension of the production complex involved the construction of two parallel buildings ("sleeves") with an elongated rectangular plan, each with three floors and separated by a narrow inner courtyard. Inside the two

The starch decanting tanks (photo by author)

"sleeves", an innovative vertical production process was organised: on the ground floor, the tanks for decanting the starch solution, on the first floor, the departments for preparing the starch paste for drying, and on the second floor, the drying facilities.

Another four-storey building was built orthogonally to the two "sleeves" and housed the initial stages of the production process: on the ground floor, there was a heating plant with two Cornish boilers made by *Skoda-Werke* in Pilsen (Czech Republic) and a steam engine made by *Ernste Brunnen Maschinen - Fabriks - Gesellschaft* in Brunn.

It should be noted that the configuration of the factory and the processing equipment, which was put into operation in 1902, remained unchanged until production was definitively discontinued in 1986. The preservation of the buildings and machinery in their entirety makes this complex an invaluable document of 20th-century industrial culture. After its closure, another important chapter in the history of the Chiozza starch factory began, concerning the methods used to restore it. The exemplary value of the collaboration between different players deserves the highest consideration. Their different roles did not prevent the common will to protect what is probably a unique complex in Europe (a similar plant, built in 1931 in Tczew, Poland, was destroyed during the invasion of the German and Russian armies in 1939).

The first steps to save the monument were taken by the official authorities: in 1989, the Superintendency for Archaeology, Fine Arts and Landscape of the Friuli Venezia Giulia (FVG) Region listed the monument for its cultural interest; in 1991, the Municipality of Ruta, sensitive to the cultural and social value of the industrial complex, proceeded to purchase it directly at public auction.

Both decisions, although fundamental, were not enough to halt the progressive deterioration of the structures. In 1998, the municipality managed to obtain a modest grant from the FVG Region to finance the reconstruction of the roof of the steam engine room, which had previously collapsed, but in the following years, further attempts to raise funds were unsuccessful.

The turning point came in 2014 with the creation of the *Amideria Chiozza Cultural Association* (www.amideriachiozza.org), which, thanks to a grant of €28,000 from the Italian Environmental Fund

The starch paste preparation (photo by author)

(FAI) in 2018, was able to begin the restoration of the plant's historic steam engine. This is a story that deserves to be told in a nutshell. The restoration began with the presence on site of technicians from the Technické muzeum v Brnˇ, TMB (State Museum of the Ministry of Culture, Brno, Czech Republic).

In direct collaboration with them, a photographic and cartographic survey of the machine was carried out, followed by the dismantling of all its components. Some of them (the most complex, such as the engine frame and cylinders, the crankshaft with the flywheel and connecting rod, and the rear bearing support), were packed and shipped to the Czech Republic for restoration by Flirex, a company specialised in the restoration of technical monuments. Other, simpler components were instead restored in situ by volunteers, in a total of 1521 man-hours. The reassembly, based on previously collected documentation, was completed in November 2020, and on 26 June 2021 an official ceremony was held to inaugurate public visits to the fully restored machine. The result of the intervention is remarkable in many respects: the saving from destruction of an outstanding example of an early 20th-century steam engine, the scientific criteria with which the restoration was carried out, and the essential contribution of the work carried out by the teams of volunteers belonging to the Chiozza Association.

But volunteering was not enough. It was accompanied by a direct commitment from the municipality, which in 2016 managed to raise an initial contribution of 300.000 euros to carry out studies and surveys. However, it was not until 2018 that the town council received substantial funding from the Ministry of Culture, totaling around 7 million euros, thanks to which a design competition was launched in which 19 national and international groups took part and which ended in 2021 with the announcement of the winner and the award of the contract. The final design was completed in 2022, and restoration work is currently underway.

The 7 million euros will enable the first lot of interventions to be carried out, the building known as the "mill" for the processing of fine material. This is a valuable building with a wooden roof, adjacent to the steam engine room, whose machinery and other production equipment, once restored, will form the first nucleus of the future museum area. The second lot of work will begin once a further 4.5 million euros has been made available to complete the museum area with the restoration of the processing equipment located in the architectural bodies at the head of the factory complex.

One of the most important merits of the project is that it has

been possible to combine musealisation and adaptive reuse in the restoration of the Amideria. This is not a secondary merit, since it is often the case in the recovery of industrial heritage that these two objectives are set as alternatives to each other. In the case of *Chiozza Amideria*, the large amount of space available has made it possible not only the musealisation of the production areas with all the machinery still in place, but also to give new functions to other areas not directly involved in the production cycle. In fact, the project provides for a significant part of the space to be dedicated to advanced tertiary activities in the research and development sector, as well as a hinge area, between the museum area and the research area, dedicated to shared services. In the Amideria, therefore, museum functions and new activities of a more commercial nature, which are essential for the future financial self-sufficiency of the project, can coexist. None of the players involved in the *Amideria*'s redevelopment hides the scale of the challenge: the *Amideria* is located in an agricultural area, close to a small town and not in the vicinity of a large conurbation; the search for companies interested in settling in the spaces of the planned technology incubator will have to take into account the lack of attractive factors such as the presence of university institutes and research centres in the vicinity. It is therefore essential that the development strategy of *Chiozza Amideria*, as a centre for innovative services for the creation of new businesses, can count on the support of the main regional and national players, starting with the Province, the Friuli Venezia Giulia Region and other public organisations, without excluding the search for potential partners, even in a transnational context, such as that of the old *Mittleeurope*.

SPAIN

EXPLORING THE INDUSTRIAL HERITAGE OF SUGARCANE IN EASTERN ANDALUSIA: VESTIGES AND SIGNIFICANCE ALONG THE MEDITERRANEAN COASTLINE

Jose A. Saez Calvo, MSC Industrial Engineer, FUPIA, UNED and INTEC

The chronicle of saccharide production in Eastern Andalusia serves as an exemplar of human adaptability, technological progression, and socio-economic ramifications.

Spain's sugar sector's metamorphosis in the twilight of the 19th century and the dawn of the 20th is intricately woven with geopolitical currents, agricultural innovations, and fiscal hurdles. Until the conclusion of the 19th century, Spain was largely dependent on saccharose derived from sugar cane in its overseas territories. Additionally, within the Iberian Peninsula, the provinces of Almería, Granada, and Málaga harbored a burgeoning cane sugar enterprise that fulfilled approximately a third of the nation's saccharide requisites.

However, relinquishing its final overseas territories in 1898 compelled Spain to seek alternative sugar sources to meet domestic demand. Amidst this backdrop, the Beta Vulgaris, commonly known as sugar beet, presented itself as a tenable substitute. Prompted by the triumphs and fiscal advantages observed in the beet sugar industry across European counterparts, Spain ventured into cultivating this crop. Preliminary trials were executed in Andalusia between 1882 and 1883. By the century's turn, Spain boasted sixteen beet sugar establishments, juxtaposed with twenty-two cane sugar facilities.

It's 1903, and the Sociedad General Azucarera (SGA) emerged during this transformative era. This consortium, magnetizing substantial investors and industrialists, specialized in Beta Vulgaris-derived sugar, securing a considerable market share.

This pivotal juncture in Spain's saccharide sector underscores the nation's resilience in navigating geopolitical and fiscal shifts. The shift from saccharose cane to beet, coupled with the challenges encountered by the SGA, elucidates the interplay among commerce, regulatory frameworks, and agronomic technologies within the Spanish milieu.

A significant chapter in this narrative is the industrialization of cane-derived saccharide along Granada's coast. Botanist Ramón de la Sagra's contributions are paramount in delineating the sugar production trajectory in Spain. A Havana native, his sojourn to the peninsula resulted in the infusion of knowledge about the acclaimed Cuban sugar methodologies, catalyzing industrial endeavors. This crescendo with the inception of the Sociedad Azucarera Peninsular in 1845, which commissioned the maiden mechanized sugar mill in Almunecar. This was subsequently equipped with cutting-edge Derosne-Coil brand evaporators and, latterly, with centrifuges. By 1866, its success paved the way for a novel facility in Salobrena.

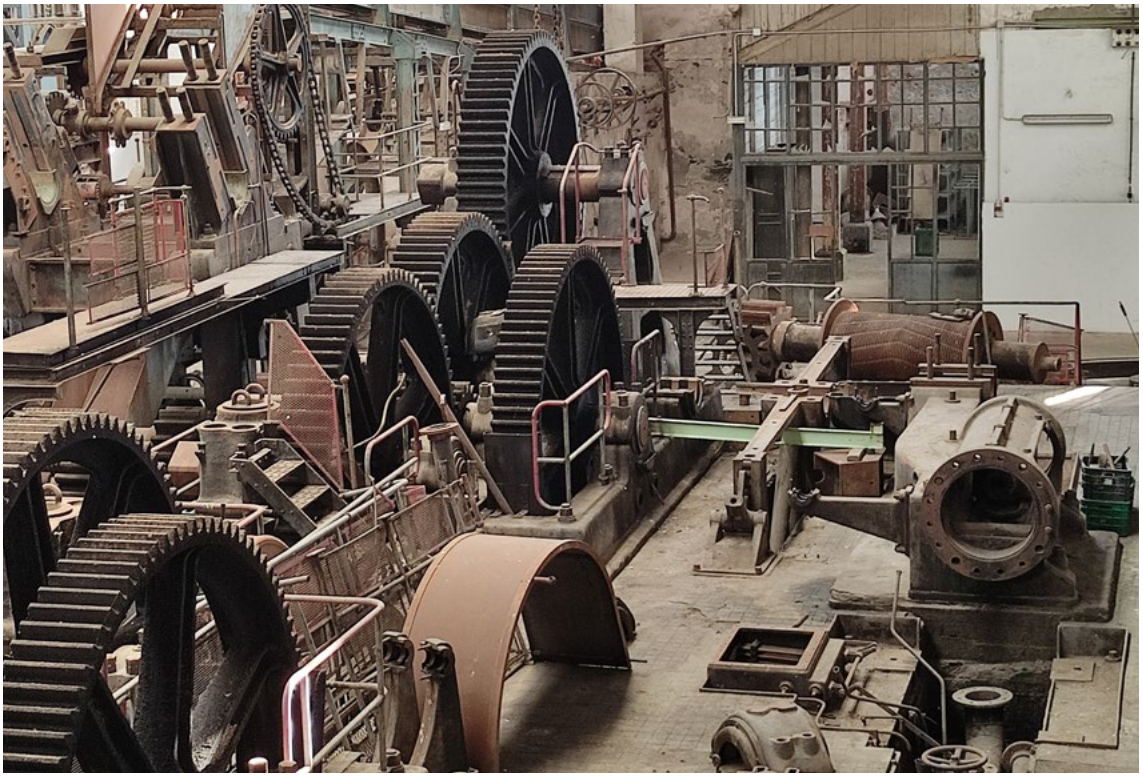
A hallmark of technological augmentation was the integration of steam engines. This paradigm shift enhanced the efficiency of extracting sugarcane juice, supplanting the antiquated "blood traction" method reliant on manual or animal exertion. Its utility was twofold: purifying and concentrating the cane while generating kinetic energy.

The machinery underpinning these innovations predominantly originated from France and the British, with stalwarts such as Fives-Lille, Cail, Savalle, and Mirrlees Watson Co. at the forefront.

The evolution from rudimentary stone mills to horizontal roller mills, culminating in the advent of mill trains during the steam era, epitomizes the metamorphosis of cane juice extraction techniques. Augmenting this technology was the introduction of osmosis procedures in 1870 by the Marquis of Larios, which was pivotal in enhancing the efficacy of extracting sucrose juice, especially from beets.

The sugar industry's impact is not merely relegated to technology but is profoundly etched in the landscape and historical fabric. The

Nuestra Señora del Rosario Factory. Detail of the building façade (photo by author)



Milling train building. Nuestra Señora del Pilar. Motril. Granada (photo by author)

iconic chimneys and towers, initially brickwork and subsequently concrete constructs in Granada, are emblematic of European industrial lineage. Extant vestiges, transcending historical photographs, underscore the profound technical and industrial advancements. They also encapsulate how pioneering visionaries altered Granada's coastal sugar production landscape.

In alignment with this narrative, Spain has instituted frameworks like the National Industrial Heritage Plans (established in 2011 and revised in 2016) and the 2012 Cultural Landscape Plans. Spearheaded by the Institute of Cultural Heritage of Spain (IPCE) in synergy with the Autonomous Communities, these plans are mainly oriented towards landscapes of substantial cultural significance. Initial phases involve comprehensive inventory preparations, followed by meticulous

Milling train building. San Luis. Motril. Granada (photo by author)

Restoration and in-operation milling train. Nuestra Señora del Carmen, Frigiliana. Malaga (photo by author)

planning and study phases concurrent with the National Industrial Heritage Plan. Notably, a 2020 endeavor cataloged 177 sites bearing industrial vestiges, including Motril's Nuestra Señora del Pilar, founded in 1882 by the consortium Burgos, Dominguez-Garcia. Though its operations ceased in 1984, this building remains an invaluable beacon of the region's industrial past, safeguarding an eclectic array of steam machinery from the late 19th and early 20th centuries.

This industrial legacy parallels other Andalusian sugar repositories, such as the christened Nuestra Señora del Rosario - later rebranded Azucarera del Guadalfeo SA. Its significance culminated in a 2008 decree, registering it as a cultural asset of profound ethnological interest.

Strategically situated between Motril and Salobrena districts within the Vega del Guadalfeo, these sugar behemoths are not mere relics

but chronicles of socio-economic processes, like the "Zafra" harvest, intrinsic to the region's livelihood and economy. Their conservation and scholarly exploration are indispensable for comprehending the intricate historical tapestry of the Andalusian coast.

A discerning eye reveals the tangible technological advancements encapsulated within the preserved machinery. Ranging from basic millstones to steam engines, these artifacts chronicle the industry's evolutionary trajectory. These technological relics serve as prisms, reflecting the economic dynamics, technological strides, and evolving labor practices.

Notably, the fertile plains of Granada (Vegas) have observed a discernible pivot towards beet cultivation. Although sugar cane cultivation persevered, tropical produce such as cherimoya or avocado began to gain prominence, gradually overshadowing traditional sugar cane. With Granada accounting for nearly half of Spain's sugar cane cultivation, its contribution to national production is undeniable.

However, the shifting sands of geopolitics and economic policies, especially with Spain's integration into the European landscape, brought considerable challenges. Intriguingly, firms like Azucarera del Genil ingeniously amalgamated sugar beet processes with cane derivatives, optimizing profitability and creating a symbiotic relationship between crops.

Despite the downturn of the sugar industry by the late 20th century, its profound legacy was maintained through dedicated efforts. Presently, enduring symbols of this past, like NS del Pilar and San Luis in Motril, NS del Rosario in Salobrena, and the revived, functioning NS del Carmen in Frigiliana, serve as beacons of the industrial history of the coast of the former Kingdom of Granada, bearing witness to the adaptability and innovative spirit of the region in relation to sugar cane production.

The Kempton Steam Museum (formally The Engine House) (photo by Kempton Steam Museum)

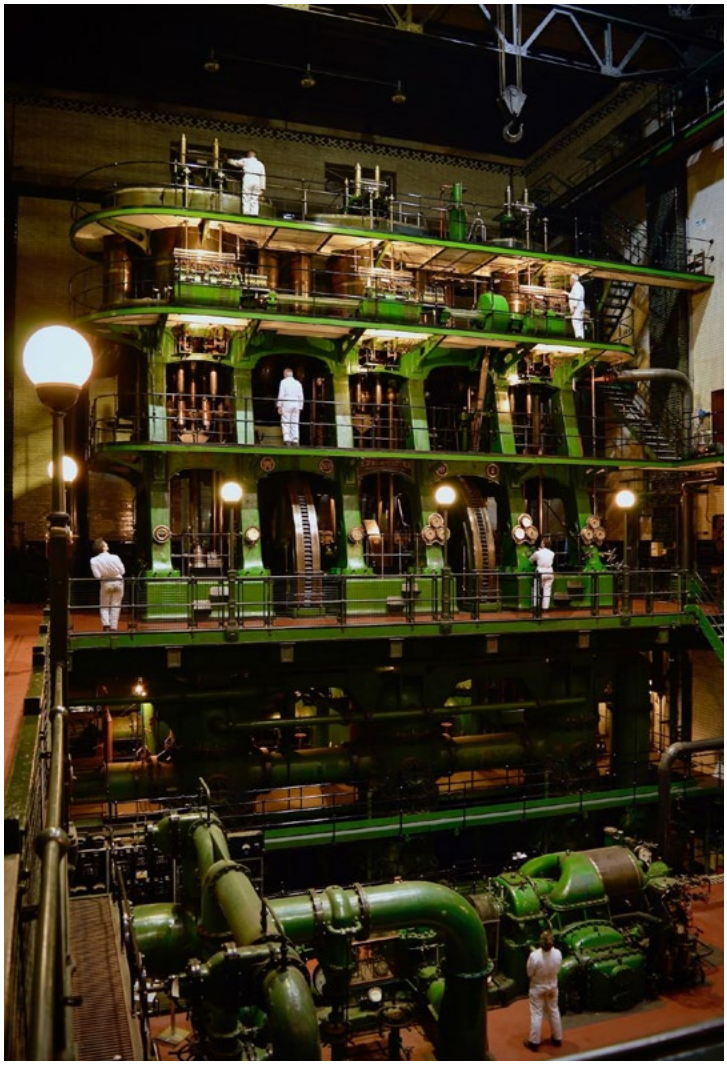
UNITED KINGDOM

THE KEMPTON STEAM MUSEUM: AN INTRODUCTION

Steve Gray and Stephen Fielding, Kempton Steam Museum

Kempton Steam Museum is located at the Kempton Park Pumping Station in south-west London and houses two of the largest triple-expansion steam engines ever built. The two mighty engines were ordered by the Metropolitan Water Board in 1924 from Worthington Simpson of Newark-on-Trent to meet London's increasing demand for water. Each engine was capable of pumping 12 to 19 million gallons per day (86 million liters), from Kempton Park to high-level covered service reservoirs in north London. In its heyday, Kempton was supplying water to 14% of the population of London which equated to 1 million people daily.

The new Worthington Simpson engines were in addition to five other steam engines installed at Kempton Park in 1906. These were also triple-expansion engines but made by the Lilleshall Company of Oakengates, Shropshire, each capable of pumping 15 million gallons per day (68 million litres). Two of these engines were known as the



The Sir William Prescott engine with a steam turbine engine in the foreground (photo by Kempton Steam Museum)

'first lift' units and were used to pump water from an adjacent aqueduct that brought water from the River Thames at Staines for filling the Kempton East and West raw water reservoirs. From there, the water was then filtered through twelve slow sand filter beds and pumped by three 'second lift' engines to Cricklewood where a further three Lilleshall 'third lift' units supplied the Fortis Green reservoir. These engines remained in service until 1968 and were scrapped in 1974. They were replaced in the late 1970s by five electric 'spindle' pumps which eventually took over all of the pumping operations at Kempton Park.

The two Worthington Simpson engines named, 'The Sir William Prescott' and 'Lady Bessie Prescott' after the then Chairman of the Metropolitan Water Board and his wife, were completed in 1929. The installation meant, on average, an additional 24 million gallons (109 million litres) of drinking water could be pumped to service reservoirs at Cricklewood, Highgate, Bishops Wood, Finsbury Park and Fortis Green. Water from these reservoirs would then flow by gravity for distribution to large parts of Central London, the East End and the City of London.

One of the single cylinder starting engines (photo by Kempton Steam Museum)

Stretching over seven stories, each engine stands 62 feet tall (18.9m) and weighs 800 tons. They have a top speed of 25.4 revolutions per minute and generate 1008 water horsepower. Their three double-acting cylinders (high-, intermediate-, and low-pressure) each measure 29, 54 and 86 inches, respectively (approximately 73cm, 137cm and 218cm). In service days, superheated steam entered the high-pressure cylinder at 200 pounds per square inch which was produced by a bank of water tube boilers made by Babcock & Wilcox. The steam once used in the high-pressure cylinder is then reused by the remaining two cylinders before being exhausted into a separate condenser which turns the steam back to liquid water and produces a vacuum. The 'used' steam is given a small re-heat as it passes from one cylinder to another via two components called the receivers. A bank of coal-fired boilers in an adjacent boiler house originally produced the steam, with the coal being delivered by a standard gauge and later narrow gauge railway. Sadly all the steam raising plant was scrapped in 1993.

Owing to their similarity in design and size to the engines onboard the RMS Titanic, the engines are often used as stand-ins in films and documentaries about the ship. The museum jokes that the Sir William Prescott engine has likely ran more as Titanic's

engines than Titanic's engines ran as themselves! The engine stood in for Titanic most recently in a flop of a film, Holmes & Watson.

Though the two mighty triple-expansion engines were installed in 1929 to slake London's thirst, the continued growth of London meant that additional capacity was again needed in 1933. This time with a pair of steam turbine engines ordered from Fraser & Chalmers in Erith, Kent. These were coupled to centrifugal pumps made again by Worthington Simpson. Each pumping unit could deliver 24 million gallons (109 million litres) of water per day. The new engines were installed in the space between the existing triple-expansion engines. All engines in the building remained in service until 1980 when the electric pumps took over.

Following the decommissioning, all four engines remained untouched until 1995 when the water company, Thames Water, approached experts from the local Kew Bridge Steam Museum in Brentford and offered the site for restoration. This led to The Kempton Great Engines Trust being established in 1997 and by 2002, volunteers returned the Sir William Prescott engine to steam and the museum was inaugurated by HRH The Prince of Wales (now King Charles III) that December. The engines are the main exhibits of the Kempton Steam Museum, which is open to the public most Sundays (spring to autumn) and usually has a steaming weekend once per month. The admission price (2023) is £10 for steaming weekends and £7 for static Sundays. There is also a railway trip available at an extra cost.

The scale of these engines is truly impressive and the building that houses them is excellently preserved and retains the Metropolitan Water Board's coat of arms which boasts a latin motto translated as 'and I caused it to rain upon one city'. The building also boasts its original wall and floor tiling as well as walls of glazed bricks. For those interested, informative guided tours will take you to the top of Bessie to view the engine up close. From here you can appreciate the true scale of these fine engines.

www.kemptonsteam.org

CONFERENCE REPORTS

UNITED KINGDOM

THE AIA 50th ANNIVERSARY CONFERENCE AND SEMINAR: A BRIEF REPORT

Patrick Viaene, TICCIH Belgium

From 1st to 6th September 2023, the 50th Annual AIA Conference (Association for Industrial Archaeology) took place at the University of Bath. This conference, prepared and chaired by Dr. Marilyn Palmer, was dedicated to Angus Buchanan (1930-2020) and his wife Diana Buchanan, pioneers of industrial archaeology in Britain from the late 1960s onwards.

The first day was conceived as a seminar about different actual aspects of the discipline, such as the place of industrial archaeology in higher education and the benefits of volunteering in the conservation of industrial heritage, illustrated by the example of Dawe's Twineworks in West Coker, Britains's only surviving Victorian twineworks with its original working machinery. An exciting report about the conservation process of the wool factory Tone Works in Wellington was followed by a round table tackling the central question: 'How do we get young/new people into Industrial Archaeology?'.

The second day started with presentations by four speakers from the European mainland. Helmuth Albrecht (Technical University of Freiberg, Germany) evoked the long and laborious process of recognition and nomination of 'the German-Czech Cultural Landscape Erzgebirge/Krusnohori Mining Region' by UNESCO. Then Patrick Viaene (TICCIH Belgium) outlined the general conservation context of mining heritage in Belgium, with a focus on the safeguarding of the coal processing and washing plant in Beringen. Thanks to the efforts of various heritage associations and the project 'TRIAGE', steps in the right direction could be taken, although the conservation of essential parts of the technical infrastructure cannot yet be guaranteed. The next speaker, Piotr Gerber (University of Technology, Wroclaw, Poland), described the strategies for conserving industrial heritage in Poland on the basis of numerous outstanding realizations of the 'Foundation of Industrial Heritage in Silesia.' In his presentation 'Factories as Phoenix: Industrial Heritage and Adaptive Reuse in Italy', Massimo Preite (University of Florence, Italy) distinguished different categories of re-uses: from integral conservation (and respectful rehabilitation) to re-use of industrial buildings, subject to significant volumetric changes and over-dimensioned outbuildings. Preite clarified that the ecological and sustainable reuse of old factories does not guarantee respectful handling of their heritage values.

The day's program was completed by awarding researchers and authors of respected publications. The yearly AIA-Awards reflects the actual efforts of researchers in Industrial archaeology.

During the following days of the conference, different tours were presented, including visits to the 'Museum Bath at Work,' the Bristol Docks, the Clifton Suspension Bridge, the Kennet & Avon Canal, and Radstock with the Somerset Coalfield. For more information about the next activities of AIA, see https://industrial-archaeology.org

A view from inside the Diageo Archive's impressive bottle library. Business archives are a peculiar kind of 'archive' as they usually contain not only records, ads and pictures, but also a surprisingly large amount of artifacts, from bottles to complete machinery and even whole buildings (photo by author)

UNITED KINGDOM

SBA CONFERENCE 2023

Robin Debo, ETWIE

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On the 25th and 26th of September, Business Archivists from all over the world met for a conference hosted by the Diageo Archives in Edinburgh. It was organised by the Section for Business Archives (SBA), which is part of the International Council of Archives (ICA). The central theme of the conference and presentations was: how can business archives engage in novel ways with internal and external audiences?

Over twenty presentations were divided up into several themes. Way too much content to discuss here, so this report will talk about some trends we picked up and then look at a few contributions that caught our interest in particular.

One major trend was the use of yet unused or not yet researched bits of history stored in business archives for major tourism strategies. From pasta maker 'Pasta Cuomo' that expanded into 'pasta-tourism' with the goal of making Gragnano known once more as the pasta capital to a nationwide 150+ million investment strategy called 'Destination Scotland' by Diageo. Launched in 2018, they aimed to promote their brands and, more specifically, Whisky Tourism to over 14 distilleries. Participants of the conference got to experience firsthand the results of this and how the Diageo Brands archive was a major source and contributor to the program.

This was followed up by inspiring initiatives from other business archives. From designing escape rooms to devising a structure to categorise their internal stakeholders. We got to know how Museimpresa brings together over 130 museums and archives of large, medium, and small Italian companies, organises events and sets up

actions to promote visits and collaborations with all their partners, from Instagram campaigns (#neltempodiunastoria) and a movie to organising a 'Business cultureWeek'.

The Swedish Centrum for Näringslishistoria presented their newest publication about History marketing - using History as a corporate strategic asset. Drawn from over 50 years of convincing corporations to take care, value and more importantly 'use' their heritage, stories, and history the organisation shares lessons learned, tons of cases and examples of how things can be used, told and shared. While the intended audiences are company executives, marketers, communicators, corporate lawyers, HR managers, and entrepreneurs, the booklet contains lots of useful information, ways of 'selling' an idea, and examples to pull inspiration from for company archivists, archival institutions, museums and heritage professionals.

To conclude this report, we would like to briefly focus on the main points of two sessions that talked about initiatives that might directly inspire your own organisation or approach.

Impact without a huge budget – by IBM's corporate archivist Jamie Martin

The IBM archive stores about 30000 boxes of documentation and houses about 3000 (small and very very large) artifacts. When lockdown hit, they decided to make a few basic virtual tours of the archive, using only a smartphone. They chose an interesting medium to publish these tours: GitHub (the most widely used online software coding and software development platform). The tours were a hit amongst Microsoft personnel stuck at home.

As the company found ways to structure the wave of 'work-from-home' the IBM archive chose to invest in building a company-wide everyone-can-join slack channel called #history-at-IBM. They had noticed people needed a place to talk or share interests on older IBM tech and history easily, and slack seemed like an easy place to offer this. The channel launched in January 2021 and posted daily and monthly themed content.

The channel became incredibly popular and quickly reached over 4000 subscribers. Topics they shared suddenly got picked up by communications and other divisions in the company and even got shared 'outside'. Moreover, because Slack is a very low-effort platform to contribute, they received a lot of responses from people, who ended up interacting with the archive and each other, sharing memories, or asking questions. This single-channel managed to give A LOT of visibility to the otherwise nearly invisible work of the archive and received great reviews across the board. One they were very happy to share from a senior manager was: 'This channel does more for employee morale than a dozen wellness webexs'. They also noted a major increase in requests to give presentations or find documentation in the archive. So, if your company uses Slack or any other similar chat-based platform, you might want to start exploiting it!

Collaboration between Irish Distillers archives and Ancestry to unlock specific records – by Carol Quinn, Archivist of Irish Distillers.

This contribution was an excellent example to illustrate that business archives are equally important as cultural heritage and can even be of national interest. Some important context: Ireland is a tricky case for genealogical research. In 1922, the Four Courts building in Dublin burned down. The public records office was housed there. So, a lot of sources generally used for genealogical research were irrevocably lost. While it doesn't make genealogical research in Ireland impossible, it does make it substantially harder with many gaps to fill in. As such, any new sources that document names of people, occupations, and other miscellaneous information are highly regarded.

This is where the Irish Distillers Archive was able to step up. Twice. They had a series of wage records for the Distillery John Jameson & Son. It counted 97 volumes from 1862 to 1969. This included insurance books, unemployment records, stamp books, wage books, and time books. They also had a series of Bottling Agreements with Publicans from 1905 – 1965, 35 volumes. Publicans were customers – often pub owners - who bought barrels and then did their own bottling. They had to sign an agreement promising not to tamper, blend, or mislabel the drink. These agreements listed the name, occupation, and various other information about the one buying the casks, but also mentioned at least one witness, including his or her occupation. Often, this was a circumstantial visitor to the particular pub. As such, these agreements are a curious gold mine for genealogical researchers.

However, it was a huge amount of paper, not sorted, not chronological, and as such unsearchable unless digitised. But digitising and processing this material was a daunting task that would simply overwhelm the single archivist employed at the Irish Distillers Archive. So they partnered up with Ancestry.com.

Ancestry then sent a team of several people to Ireland with equipment to set up a digitization studio and quickly scan everything. Processing the metadata then took about a year, after which all this information was made available through Ancestry.com but also through the Irish Distillers Archive. Everything GDPR-related was sorted out through the legal team of Ancestry.

Geneological researchers rejoiced with this valuable gift. The company also benefitted, as unlocking these records was a unique and unprecedented way to connect with Irish people past and present and associate authenticity, Irishness and being part of Irish history and culture with the brand. A veritable everybody-wins scenario.

It makes you wonder what information business archives could unlock in other countries if efforts were made to digitise and share with the public.

View during one of the workshops (photo by Moulshri Joshi)

SAUDI ARABIA

BACK FROM RIJADH: IIE 3-DAY WORKSHOP ON DOCUMENTING INDUSTRIAL HERITAGE IN SAUDI ARABIA

Mirhan Damir (Alexandria University/TICCIH Board), Moulshri Joshi (TICCIH Board), Athira Tp

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It is only in the past decades that the domain of industrial heritage has emerged as an area of interest in most parts of the world. This is evident from the dominance of European countries in the World Heritage List while regions of Asian, African, and Arab countries largely remain under-represented. The reason for this under-representation is not the absence of industrial sites, but the lack of awareness and the public's perception. Often, industrial sites are viewed as large, messy, and dangerous, and are recognised as mundane structures incomparable to other historical assets of value. It is in this context that knowledge-sharing, awareness, and training programs become extremely important.

Saudi Arabia is one such country with a rich industrial heritage of several sites dispersed across its provinces. These industrial heritage sites hold great historical, technological, social, architectural, and scientific value. The sites comprise of buildings, machines, factories, mines, refineries, warehouses, labour settlements, etc. At present, there are several great initiatives underway to protect and raise awareness about Saudi Arabia's industrial heritage.

As part of these commendable initiatives, the Institute of International Education (hereafter IIE) collaborated with the Saudi Heritage Commission under the Ministry of Culture to orchestrate a training program with the primary objective of equipping heritage professionals within the country with valuable skills and insights. At its core, the training emphasized the pivotal role that research and documentation play in safeguarding industrial heritage. Guiding this endeavour were TICCIH Board members, Moulshri Joshi and Mirhan Damir, who served as the workshop facilitators. The program unfolded over three enlightening days between August 14th and 16th, 2023.

Day 1 commenced with an illuminating exploration of industrial heritage. Participants were immersed in discussions about industrial heritage, the importance of conserving it, as well as the challenges and opportunities it presents. Furthermore, the day delved into the prevailing status quo of definitions, statutes, charters, and categorization in selected countries, along with the critical review of the distribution of sites across the World Heritage list. The day culminated in a brief introduction to recording and documentation.

The program on day 2 was entirely dedicated to the documentation of industrial heritage. This comprehensive coverage included an array of concepts and techniques related to documentation within the physical, social, and ecological contexts. Participants also delved into the management of industrial archives and the nuances of utilizing photographs and oral history. The importance of outreach through a diverse array of means was also discussed through examples of organizations and their initiatives from selected countries.

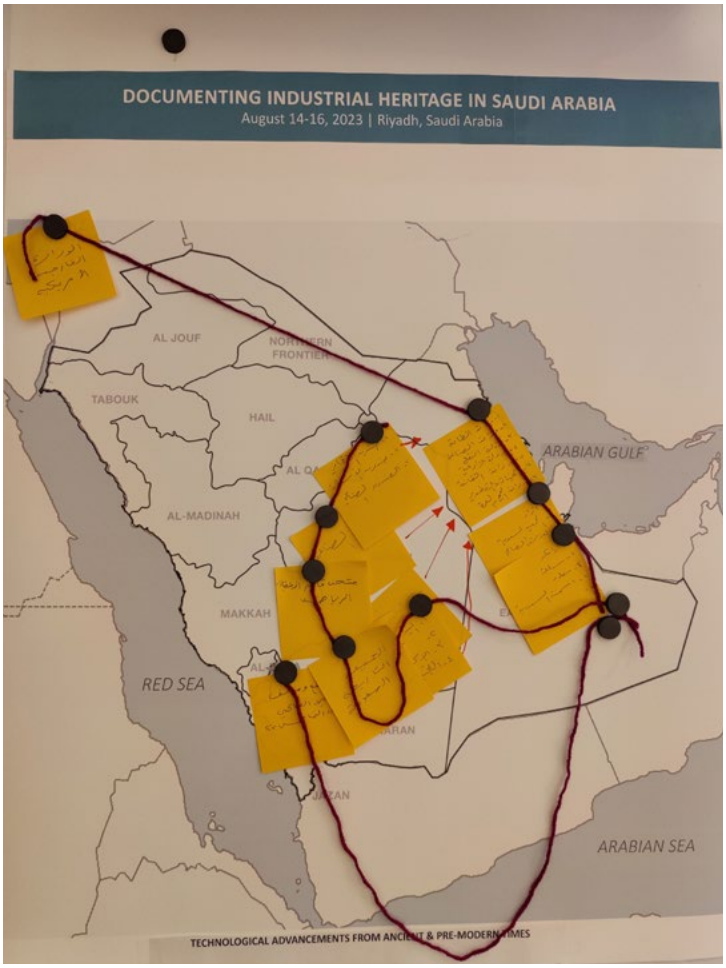
Day 3 illuminated the concept of adaptive reuse and its implications for the future of Industrial Heritage in Saudi Arabia. The program examined how charters define adaptive reuse and its practical application in the context of industrial heritage conservation. Furthermore, participants gleaned valuable insights from best practices, as illustrated through compelling case studies.

Diverse activities and round table discussions fostered engagement and critical thinking among the attendees, connecting them on a profound level with Saudi Arabia's industrial heritage sites. The program was well received by the participants, who encompassed representatives from the different sectors of the Saudi Heritage Commission (archaeology; intangible heritage; urban heritage; World Heritage; and business development and investment) and representatives from Aramco and the Ministry of Industry and Mineral Resources.

Besides the input facilitated by Mirhan and Moulshri, the workshop involved two guest speakers who presented ongoing projects to preserve industrial heritage in Saudi Arabia. The first was on the significance of the ancient and modern dams in Saudi Arabia, presented through the perception of Saudi artist Ayman Zedani. The second guest speaker was Nouf Al-Yemni, Senior Project Manager at the Ministry of Culture, who talked about the revitalization project of the JAX District from a former artisan workshop area to an artistic hub. Both presentations were well integrated within the workshop and enriched the discussion among all the workshop attendees.

The 3-day workshop ended with positive feedback from all parties. The diverse topics and discussions resulted in tailoring prospects for conserving industrial heritage in Saudi Arabia. By the end of the workshop, the organizers and TICCIH facilitators shared their mutual interest in consolidating the workshop's success by proceeding with more cooperation with TICCIH on knowledge-sharing and awareness-building through more training programs. This promising step supports TICCIH's goals of promoting "international cooperation in preserving, conserving, investigating, documenting, researching, interpreting, and advancing the education of the industrial heritage".

The authors wish to express their gratitude towards Athira Tp, Conservation Architect and member of TICCIH India, for the research and documentation support in drafting the workshop material and this article.



Documenting industrial heritage on the second day of the conference (photo by Moulshri Joshi)

EVENTS

LINKS TO ONLINE EVENTS CALENDARS:

- TICCIH Conference Calender
- ICOMOS Conference Calender
- UNESCO Events

To add events to the TICCIH Calender please send details and a link to ticcih@mtu.edu

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