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OPINION

INDUSTRIAL HERITAGE AS AGENT OF GENTRIFICATION

Dr. Steven High and Fred Burrill, Centre for Oral History and Digital Storytelling, Concordia University, Montreal, Canada

*Editor's note: This article first appeared as a post (19 February 2018) in a series on deindustrialization and industrial heritage commissioned by **The Public Historian**. It is the first in a series of articles which look forward to the 2021 TICCIH Congress in Montreal.*

'What is the role of memory and public memorializing in digesting changes so profound and traumatic [as deindustrialization]? Even more, what is the role of memory, memorializing, and history itself in shaping the present and future of communities and regions devastated by such change? What choices do they face, and what role, if any, should publicly enacted memory play in defining, much less making and managing these choices? Whose history should be remembered and memorialized, by whom, and to what end?'

— Michael Frisch, 1998

With Brexit, Donald J. Trump, and the rise of right-wing populist parties in deindustrialized areas across Europe, the questions posed by Michael

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The former Dominion Textile Mill in Saint-Henri, Montreal, has also been converted into condominiums. Photo credit: David W. Lewis.

Frisch are as relevant today as they ever were. There is a pervasive sense of betrayal in devastated working-class communities, with many feeling that middle-class professionals, among the chief beneficiaries of rising income disparity, have done nothing to soften the socioeconomic blow on others. There is also a sense that they, or rather we, just don't care. We wish that we could disagree. But classism is alive and well in otherwise polite circles. For anyone in doubt, read the bestselling books by Thomas Frank and Owen Jones on the gentrification of progressive politics in the United States and United Kingdom.

We want to use this opportunity to consider the ways that industrial heritage is implicated in the residential displacement of working people as part of wider gentrification processes. Scholars of gentrification have long established the important role of artists in neighborhood transition, as deindustrialized areas become revalorized, or hipper, and former sites of production are converted to new uses. Industrial loft living was one early example of this. The role of artists is so central that some researchers have come to call artists the 'colonizing arm' of the middle classes. By comparison, public historians have gotten off easy. This needs to change.

The creation of industrial heritage sites and museums are often a direct response to major mill and factory closures, as politicians throw a relatively cheap economic and cultural lifeline to strug-

gling communities. Industrial heritage almost never fills the gaping hole left by departing industries, at least initially.

Industrial heritage advocates usually valorize our work by saying that the destruction of the physical sites of industry becomes a mechanism of cultural disinheritance, further wounding the fabric of memory. Make no mistake, the physical erasure of industrial sites contributes to the erasure of the accompanying working-class memories, histories, and identities. But in insisting on the preservation of the remaining residual symbols of the old industrial culture, even condoized ones, we have largely failed to acknowledge the direct and indirect ways that industrial heritage discourse and site preservation contribute to culture-led regeneration and gentrification.

In her prize-winning study of the Lowell National Historical Park (created in 1978 after the city's textile mills closed), Cathy Stanton noted that, 'like all industrial history museums, it came to praise and to bury' (xii). By this she means that in locating industrialism and industrial workers only in the past, we render invisible their continuing presence in society today. Crucially, Stanton asks: 'To what extent are public historians able to comment critically on the workings of capitalism when their own work has become to some extent a product within an advanced capitalist economy?' (28). Stanton then goes on to ask: 'To what extent can museums, tourism, and public history act as critical, counter-hegemonic sites

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- that is, as places to question and perhaps challenge the dominant forces in our lives?' (39). These are important questions, but we also need to go beyond site interpretation and consider the wider economic effects of historic preservation on surrounding areas—which often start off being among the most impoverished parts of the city. Heritage, as anthropologist Michael Hertzfeld has pointed out, is often ground zero for an alliance of state high modernism and the neoliberal tourist economy, pushing out the marginalized communities who actually inhabit urban space in favor of a sanitized version of their memory.

To ground our discussion further, we would like to turn to a local Montreal example. Once the birthplace of Canada's industrial revolution, Montreal's Lachine Canal deindustrialized during the 1960s, 1970s, and 1980s. Even the canal itself was closed in stages to navigation, with the opening of the St. Lawrence Seaway. The loss of thousands of industrial jobs devastated the adjoining working-class neighborhoods of Saint-Henri, Little Burgundy, Pointe-Saint-Charles, and Griffintown. In the years that followed the area emptied as half of the population moved away in search of better opportunities. Those left behind were the poorest of the poor. Even today, only half of area young people graduate high school.

What then to do with the closed canal and the abandoned mills and factories that lined its banks? Some proposed to fill in the canal and build a highway, but the timing was all wrong. Huge swathes of these poor neighborhoods had already been demolished to build the Ville-Marie Expressway in the 1960s. It was only in 1977, with the election of a sovereigntist [supporter of political independence for Quebec] government in Quebec, that the federal government decided to declare the canal a national park and to build a system of bicycle and walking paths. Despite calls from local tenants and social economy organizations to focus on job creation and housing, a massive, joint investment from federal, provincial, and municipal authorities aimed to reframe this public property as the economic motor for a new postindustrial society. The canal itself eventually reopened to pleasure craft. Its proximity to the central city led to its revitalization as an affluent zone of condominiums and creative-class activity. Industrial building facades have become hot cultural commodities. Gritty has become cool and the rust belt chic regal.

The **Lachine Canal** is probably Canada's most prominent example of industrial heritage [see TICCIH Bulletin #82]. Interpretative panels situated all along the canal present a birthplace of industry narrative. Passersby learn about the factories that used to line the canal, what they made, and how many worked there. Industrial architecture is also a topic of conversation. But there is nothing here on unions, strikes, or the residential neighborhoods that still stand nearby, but just beyond view. Industrial vestiges are carefully curated, valued for their sense of pastness. Parks Canada does

not control any of the buildings; it only owns the canal and a few meters of land on either side.

Like elsewhere, the industrial heritage aesthetic is valued by condominium developers and the new creative class. The first factories to be converted into condos along the Lachine Canal were Redpath Sugar and Stelco in the mid-1980s with Canadian Bag and Belding-Corticelli soon thereafter. High-end art galleries and cultural centers followed. The city quietly changed zoning bylaws, making these conversions legal. In a few short decades, the canal has become a zone of considerable affluence. Today, the names of leaders of local labor struggles such as feminist union organizers Madeleine Parent and Léa Roback ring out only as designations of streets and parks, giving cultural cachet to a new population far from the realities of difficult industrial work.

The post-industrial Lachine Canal has served as a wedge that has pried residential housing from the hands of working people as house prices skyrocketed, and with them property taxes. Duplexes were converted into unitary 'cottages,' and rents climbed. First industrial workers lost their jobs. Then, they lost their homes. Industrial heritage - both in terms of the formal heritage area as well as the wider industrial aesthetic - has been an integral part of this transformation. One might even say that industrial heritage preservation has, albeit perversely, become the other colonizing arm of the middle classes. The same can be said in other towns and cities, with the massive industrial heritage efforts in the Ruhr Valley in Germany being the most notable. It is shocking how little serious research is underway on the continuing relationship between industrial heritage sites and nearby working-class communities.

Local residents are increasingly reappropriating heritage discourse for their own needs. In Saint-Henri, the last abandoned industrial site on the Lachine Canal, the massive Canada Malting plant is the target of a condo developer that specializes in the preservation of industrial buildings. A movement is underway in the neighborhood to say that yes, the industrial heritage of the area should be preserved, but 'pas n'importe comment' - not at any price. Low-income tenants and community groups are instead calling for public investment in the malting plant to preserve its industrial façade while converting the site to social housing and local, job-creating businesses. As public historians, we need to pick a side.

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INDUSTRIAL HERITAGE OF MODERN IRON AND STEEL MAKING: PRESERVATION BEFORE EXTINCTION

Rolf Höhmann, Büro für Industriearchäologie, Darmstadt, Germany

The preservation of modern large scale 20th-century ironmaking plants in Europe is developing in an amazing way – recently protected modern blast furnace works in Portugal, Spain, Italy, France, Luxembourg and the Czech Republic are favourably completing the already well known examples in Russia, Poland and Germany. Blast furnaces as monuments of industry seem to become a fashion, although measures for long time protection and conservation are just in their first experimental stages and have to be developed further. (For another example, this time in China, see [page 10](#)).

On the other hand, the protection of technical processes like steel-making, either in Bessemer-, Thomas-, Siemens-Martin, Oxygen- or electric furnaces has not developed on the same scale. Also the first continuous casting machines, large format rolling mills and the remains of other related manufacturing processes have not been preserved as monuments of this fast changing and rapidly vanishing industry. The smaller examples of these works are just in the last stages of their production- and economic-life cycle, so the protection of at least one specific example of each type becomes an urgent matter. The scale of these works and the problems of their protection and conservation however demand a coordinated European approach.

A. MONUMENTS OF INDUSTRIAL PIG-IRON PRODUCTION

The first preservation success in the iron producing industries had been the well known Sloss furnaces in Birmingham/Alabama in the USA and in Nizhny Tagil in the Urals. The two blast furnaces with related installations in Sloss are owned by the town of Birmingham and are open to the public since 1983. The similar plant in Nizhny Tagil is part of the museum of the local steel making complex and adhering town and became known in the West only after the liberalisation in Russia since 1990. Lesser known examples of early conservation are the Higashida furnace No. 1 in Yawata in Japan, dating from 1901 and restored in 1973 to become incorporated in a „Memorial Park“, and the small Starachowice furnace in Poland, owned formerly by the museum of the STAR-truck building company and now in the care of the regional conservation office. A recent surprising discovery is the ‘Parque Fundidora‘ in Monterrey in Mexico, which uses the site of the former pig-iron and

casting plant. The blast furnace No.3 is part of this recreational park and open-air museum.

In the last years many countries in Europe preserve blast furnace plants as protected monuments or plan to do so. In eastern France one blast furnace with cowpers, blowing engine and coke batteries of the Uckange plant is under protection. Future plans include the partial conservation for cultural and museological purposes. The two very large blast furnaces of the Belval plant in Southern Luxembourg belong now to a state-owned fund, that is to restore them as monuments of the industrial history of Luxembourg. This plant shall also become the centerpiece of a new development area for offices and living quarters. In Sagunto in Spain a single isolated blast furnace has been renovated for a total of 1.1. million Euros. It is the last reminder of the once important Altos Hornos Mediterraneo – Blast Furnaces of the Mediterranean. The site of this large plant is today a seaside industrial development. Of two blast furnaces saved for some years in Bilbao in northern Spain, only one will survive, receiving money now for stabilizing and conservation. The only blast furnace of Portugal in Seixal, near Lisbon, was blown out in 2001. Plans for its protection as part of the ECO-Museum Seixal are in discussion. Parts of the former ILVA works in Bagnoli, at the bay of Naples, will be included in a town rehabilitation scheme. The ore and coal staithes are already used as a public promenade, whilst the preservation of the surviving blast furnace and the oxygen steel plant is not yet sure.

In the Czech republic an outstanding example are the Vitkovice integrated Iron Works in Ostrava/Moravia. The Hlubina coal mine, the coke plant and three blast furnaces are protected monuments and in course of renovation, which should be finished in about six years. Other parts of the large area will be used for new industrial development.

Germany plays an important role in the conservation of blast furnaces. Following the examples set by Neunkirchen, Voelklingen, Duisburg-Meiderich and Hattingen, two more plants are now protected or at least scheduled to be protected. Two blast furnaces in Dortmund-Hoerde’s Phoenix-West plant survived the closure and partial dismantling and the transfer to China. Again the area around the furnaces and their associated installations is to become the center for a new industrial development. The structural framing of one of the furnaces is now being examined for new uses and additions. The small furnace of the Maxhütte in Bavaria could play an important role in a monument with a complete production line from raw iron to the final sales product, which will be discussed later.

There are now 16 large and modern industrial blast furnaces conserved in Germany, a nearly inflationary number. They have dif-

Iron and Steel, Continued pg. 17

THE FIRST USE OF THE TERM 'INDUSTRIAL ARCHAEOLOGY'

Paulo Oliveira Ramos, Professor Auxiliar, Universidade Aberta, Lisbon

For decades now, scholarly literature has attributed the earliest uses of the term 'industrial archaeology' to the French baron Jules de Verneilh in 1876, or to the Portuguese historian and archaeologist Sousa Viterbo in 1896. But in the course of a recent investigation, I have located previous deployments of this expression in an attempt to challenge a long-established chronology. Trawling through old archaeological bulletins, journals, almanacs, and reports from great exhibitions, it soon became evident that the term industrial archaeology was not only widely in use in the late-19th century, but also that it came to life, in fact, several decades before what is commonly assumed. The earliest occurrence I found dates back to 1842. What follows is therefore a selection of the most noteworthy examples which, hitherto unknown, should lead us to revisit and revise the foundations of the discipline itself.

The ten excerpts were originally printed in the cited sources from which the present translations are made:

1881 – Augusto Mele (?-?), Italy

That is exactly what we propose to do, to publish under the title of Industrial Archaeology the most careful and accurate drawings of one thousand things, from the masterpiece to the smallest object, which would show us how ancient art has never dissociated itself from the purity of form, lines, ornaments.

—Pompei. Rivista Illustrata di Archeologia Popolare e Industriale e d'Arte, Anno I, Num. I, March 31, Naples, 1881, p. 2.

1881 – Forest and Stream, U.S.A.

An illustrated review of popular and industrial archaeology and art [Pompeii] appears on our table for the first time. Its purpose is a happy one, and deserves all encouragement. Its salutatory announces the desire that archaeology, that science which to-day is the monopoly of a small number of scientific men, should for an hour or two each month doff its severely precise cloak and, attractively clothed in the modern style, tell us the story of its deeds more simply than it has yet done.

—Forest and Stream, Vol. 16, May 26, New York, 1881, p. 326.



1881 – The Builder, U.K.

We gladly take this opportunity of mentioning the recent publication at Naples of a monthly review termed Pompeii [...] the aim of the new publication; [is] to render practical the archaeological researches into the art of the classics, and in the several parts into which the publication is divided, 'Industrial Archeology' is to take a large and important share.

—The Builder, Vol. 41, August 6, London, 1881, p. 164.

1877 – Louis Cartier de Saint-René (1839-1916) [France]

In Volume IV of the Revue des Sociétés savantes des départements, published under the auspices of the Ministry of Public Instruction, Baron de Verneilh has recently noted that industrial archeology had been little studied until now, and brought this regrettable fact to the attention of the Arts Committee. He mentioned, in particular, the iron industry, and, by way of example, he drew an interesting summary of the history of the old Ironworks of Perigord and Limousin.

—Mémoires de la Société des antiquaires du Centre, vol. 6, Bourges, 1877, p. 283.

1870 – Luiz Henrique de Moraes Garcez (?-?), Brazil

Session of the Board of Directors on January 3, 1870 [...] Dr. Garcez presented the following proposal, put on the table

ANNALES MARITIMES ET COLONIALES

RECUEIL DE LOIS ET ORDONNANCES ROYALES,
RÈGLEMENTS ET DÉCISIONS MINISTÉRIELLES, MÉMOIRES,
OBSERVATIONS ET NOTICES PARTICULIÈRES,

RELATIVES TOUTES CE QUI PEUT INTÉRESSER LA MARINE ET LES COLONIES
DANS LES RAPPORTS MILITAIRES, ADMINISTRATIFS,
JURIDIQUES, RAPPORTS, COMPTES RENDUS ET COMMERCIAUX;

PUBLIÉ AVEC L'APPROBATION
DU MINISTRE DE LA MARINE ET DES COLONIES,
ET SOUS SON AUTEUR DE A. L. D. MONTAUBERT LA PERCE DE JOSEVILLE.

PAR M. BAJOT,

MEMBRE DU BUREAU, ET COMMISSAIRE CHARGÉ DE LA SURVEILLANCE GÉNÉRALE
DES MANUFACTURES DE LA MARINE ET DES COLONIES,

ET M. POIRRE,

CHIEF DE BUREAU AU MINISTÈRE.

7^e ANNÉE. — 2^e SÉRIE. — PARTIE NON OFFICIELLE.

TOME II.



to be discussed in due course: 'I propose to the Sociedade Auxiliadora da Industria Nacional [Society for the Support of National Industry]: 1. The creation of a school for adult women; and opportunely: 2. A cabinet of industrial archeology, and especially numismatics, which will constitute the museum of national industry'.

—O Auxiliador da Industria Nacional. Periódico da Sociedade Auxiliadora da Industria Nacional, Vol. 38, Rio de Janeiro, 1870, p. 186.

1865 – Charles Blanc (1813-1882), France

As for the library proper, at present it already constitutes an imposing collection of ancient and modern books concerning the arts [...] which are the best books for manufacturers, artists and the curious, because industrial archeology has produced textbooks with examples, veritable lessons in action.

—Gazette des Beaux-arts, Tome 19, Paris, 1865, p. 196.

1865 – Félicien de Saulcy (1807- 1880), France

My dear Bertrand,
It is a question of industrial archeology (if I may indulge this expression), which has for a long time been of much lively

concern to men of the greatest merit and whose solution, for want of tangible evidence, has thus far remained in an unfortunate limbo. I wish to speak of the Phoenician purple.

—'Lettre sur la Pourpre Phénicienne a M. Alex Bertrand Directeur de la Revue Archéologique' in *Revue Archéologique*, Nouvelle série, Vol. 9, Janvier à Juin, Paris, 1864, p. 216.

1862 – Michel Chevalier (1806-1879), France

In the Middle Ages, needle-tapestry was in great favour; it was made on canvas. From this period, we still have remarkable works of patience, not as objects of art, but as monuments of industrial archeology.

—Exposition Universelle de Londres de 1862. Rapports des membres de la section française du jury international sur l'ensemble de l'exposition, Tome Cinquième, Paris, Imprimerie et Librairie Centrales des Chemins de Fer de Napoléon Chaix et Cie, 1862, p. 251

1861 – Boyer de Sainte-Suzanne (1824-1884), France

[...] we want to talk about the organization of a sort of industrial museum where a specimen of every new manufacture would be deposited. This sacrifice asked of everyone would be insignificant and the profit for all would be considerable. The Société des Antiquaires would not hesitate to devote to what we can call industrial archeology one of the rooms of this splendid Museum, whose doors will soon be open to all archaeological and artistic riches of the province.

—Bulletins de la Société des Antiquaires de Picardie, Tome VII, Paris, Librairie de J.-B Dumoulin, 1861, p. 224.

1842 – Marie Pierre Le Pelletier de Saint-Remy (1809-1882), France

On this point of industrial archeology, such is the opinion of several writers, particularly M. Rodet, the author of the article 'Sugar,' in the *Dictionnaire du commerce* [...].

—'D'un impôt sauvage. Lettre à M. le rédacteur des Annales maritimes et coloniales', in *Annales Maritimes et Coloniales*, Vol. 2, Part 2, Paris, Imprimerie Royale, MDCCCXLII, p. 1329.

Contact the author

WORLDWIDE



Non-indigenous workers in a tobacco factory, © Unknown, 1920

EGYPT

MODERN INDUSTRIAL LEGACIES

Mirhan Damir, Faculty of Fine Arts, Alexandria University

The Egyptian modern industries - as part of the so-called Modern Egypt - were first introduced in the beginning of the 19th century with the reign of viceroy Mohammed Ali. Keen to modernize Egypt according to European models, Mohammed Ali and his successors welcomed foreign investments and private entrepreneurs to come to Egypt. This in turn made tremendous physical and social changes; new urban westernized settlements were built to host the foreign newcomers, thus leading to a new residing multicultural community. Simultaneously, industrial infrastructures and buildings were built and owned by the state, foreign investors, and private entrepreneurs as part of the commercial exchange processes. These effected the genesis of new Egyptian industrial cities as well as the identity and image development of existing

ones. One of these cities is Alexandria, which became an industrial haven.

Between the early 19th until mid-20th century, the modern industries became the *raison d'être* of the city of Alexandria; these have shaped its distinctive cultural landscape, especially the port, the Mahmoudiyah Canal and the railways. Along with these, a number of diversified industrial buildings were constructed, introducing new heavy and light infrastructures and technologies in various sectors such as machinery manufacturing, transportation, power supply, communication and others. However, it was mainly the cotton industry that elevated Egypt's industrial status to a global level. These modern industries were distinguished by the social strata of white collar employees – mainly foreigners, 'local-foreigners', and Levantines – and the blue collar workers, who were a mixture of 'local-foreigners' as well as indigenous Egyptian workers.

This global Egyptian modernity fell into obsolescence beginning with the 1952 Free Officers movement, especially after the 1956 Suez War and the confiscation of foreign holdings. The liberal policy towards foreign investment and private enterprise gradually

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Egyptian workers in Mina El-Basal weighting cotton bales, © Unknown, 1930

diminished after Nasser's nationalization ideology with its arising centralized industrialization policy. Unable to conform to the new state's economical, industrial and political regulations, many of industrial buildings were either abandoned and demolished, or continued manufacturing but with a new name and management policy. The transformation of many of these modern industries from a global into a national or even local scope - in some cases - effected their functional and historical significance. Many witnesses of the history of modern industrial development are officially registered for their individual architectural value, rather than their comprehensive industrial affiliation as part of the modern heritage. The rest stands abandoned, at risk of demolition.

Regardless of whether these modern industries are perceived as witnesses of the notion of westernization or colonization, they are now part of Egyptian history that should be given their right value towards its remembrance. Until now, recognition and acknowledgment of the historical witnesses of Egypt's modern industries does not officially exist. However, some industrial buildings and sites are officially registered, yet divided between two ministries: the Ministry of State of Antiquities and the Ministry of

Culture. Interesting to know, both ministries formed their own administrations and organizations that acknowledge the witnesses of the period between the 19th and 20th century, yet separately and without their direct affiliation to Modern Egypt.

Generally, the Egyptian Ministry of State for Antiquities categorizes its historical Monuments either under the ancient Ancient Egyptian and Greco-Roman Sector or the religious Islamic, Coptic and Jewish Sector. In 2006, a ministerial administration was founded for the documentation and management of the monuments that date back from 1798 (start of the Napoleon Bonaparte's expedition) until 1952. Unfortunately, the actual categorization and activities of this new administration are weak and incomprehensive; any witness of that period, i.e. a brewery, is being officially categorized by this new administration, yet ironically under the religious sector. In 2008, the Ministry of Culture established the so-called National Organization for Urban Harmony (NOUH). Having only a legislative and non-executive power, NOUH published a report in 2006, revised in 2008, recognizing the significance of the Egyptian urban and architectural Heritage that also belongs to the period of Modern Egypt. In Alexandria, it started in 1999 when a committee

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Mahmoudiyyah Canal and the abandoned Egyptian Salt and Soda Company, © Michael Hanna, 2017

was formed to survey and list the city's architectural and urban heritage under the umbrella of the Alexandria governorate. Based on a law issued in 2006 regarding the Egyptian heritage conservation law, the Alexandria governor formed a new committee to survey and list the city's urban and architectural heritage. This was published in 2008 and entitled 'List of the preservation of architectural and urban heritage of Alexandria' with more than 1000 buildings and 60 heritage areas listed. It is, however, sometimes the case that the conservation of these historical assets stand in the way of the state's development vision, with the constant density and real-estate pressure of the city.

This is exemplified in the case of the Mahmoudiyyah Canal in Alexandria. What is now known as the Mahmoudiyyah Canal was constructed as a freshwater canal connecting the Nile with Alexandria in the 3rd century BC during Ptolemy I. It was re-established under the reign of Mohammed Ali between 1816 and 1820 in order to facilitate a commercial waterway through the city to serve the port. This canal served as a trade corridor connecting Alexandria's port with its neighboring cities until the Nile Delta. As a result, the canal effected the city on an economical as well as agricultural level. By 1827, agricultural land expanded from 16 to 50 square kilometers,

and between 1822 until 1837, foreign investments in Alexandria increased from 16 to 44 companies. Historically, this canal played an enormous role into boosting the city's urban as well as level economic, since it affected the Alexandria cityscape. The canal has long not been used as a transportation waterway, however, it still marked itself as one of Alexandria's first modern industrial landscape witnesses. In 2008, the Mahmoudiyyah Canal was listed in the Alexandria National Registered Heritage List under 'areas of a special nature'. In 2017, as a result of a governmental development plan towards solving Alexandria's dense transportation problems, a project was announced to fill in the Mahmoudiyyah Canal to turn it into a road. Although multiple disagreements of this project were expressed with alternative development proposals regarding the canal itself, the silting project started and is currently proceeding towards its finalization. Today, one can still document the last traces of the once standing modern industrial heritage. And maybe one day, there might come a time, where it will be re-dug and reborn again.

In the next issue: City, Community and Heritage workshop in the Karrouz Tram Depot in Alexandria.

Contact the author



Day Scene Photo of No.3 Blast Furnace Museum

CHINA

TRANSFORMATION OF THE CENTENNIAL SHOUGANG, EPITOME OF CHINA'S NATIONAL INDUSTRY

Hongtao Bo

Modern industrialization in China came quite late. In 1919, Mr. Sun Yat-sen completed The International Development of China in Shanghai, which systematically expounded the ways, principles and plans for the industrial development of China, and proposed a construction planning on promoting the overall modernization of the Chinese economy by emphasizing national industrialization. It was under the influence of the thought of 'saving the nation by

engaging in industry' that the wave of setting up large-scale iron and steel industry enterprises prevailed all over the country. The Longyan Iron Mine Company, the predecessor of Shougang, was born at that time.

The current situation of the high-level urbanization of China's major cities determines that for barely urbanized urban fringes, the existing land in traditional heavy industry areas is facing new opportunities as history calls them to join the overall pace of urbanization with active urban regeneration, shaping a new urban development paradigm.

After China's successful bid for the 2008 Summer Olympic Games in 2001, Shougang reduced and finally stopped steel production in the period of the Games, leaving large but bleak parks. Up to now, Shougang, accompanied by the introduction of a series of brand-new commercial activities such as the high-experience sports theme, related research and development or advanced manufac-

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A 3D Printing Model of No.3 Blast Furnace Museum

turing R and D centers, and international talent communities, is bound to realize the transformation from industrialism to urbanism and become the top hybrid urban area in western Beijing.

Shougang illustrates a brand-new template of urban regeneration with the advantages of both urban darning and urban acupuncture. As the 2022 Winter Olympic Plaza, the winter training center of the General Administration of Sport of China, and the Big Air Platform of the Winter Olympics were put into practice, enormous changes in the habitual geo-cognition in terms of exposure, reputation and experience of the region, in addition to the huge IP effect of the Olympics, helped Shougang gain a lot through the promotion and transformation by large-scale public events in the city. Moreover, the No. 3 Blast Furnace Museum, the Wuyi Theater, the Hotel Honglou reflected more attention to enterprise history and excavation of cultural value. The regeneration of these two dimensions have made a solid anchor point to a large number of social businesses.

The No.3 Blast Furnace Museum regeneration project proposes the core strategy of ‘sealing up the old, dismantling the redundant, and knitting up the new’, that is, facing the dynamic protection of

industrial heritage, eliminating the obstacles of modern urban cultural life, and constructing a sophisticated and diverse humanized living space carefully. It is indeed the driving force to reverently explore the cultural genes of the base, integrate into the urban texture and arouse the vitality of the city.

There are plenty of industrial heritage about the iron-making processes in the Shougang Industrial Heritage Park. They include the original No. 3 blast furnace, the cooling tower, the thermal power plant, the clean coal workshop, the milling workshop and other industrial constructions that carry a large number of collective memories of the land, whose renovation and regeneration marks the complete transformation of the original park from industrialism to urbanism. Here, the No. 3 Blast Furnace Museum is the most typical representative of Shougang’s spirit totem. It is no longer a giant steel structure that only produces molten iron in a large enclosed park, but is now an active space to embrace the city. It is an industrial building that bears the glory of Shougang’s history over a century; it is a science popularization base for iron-making technology; it is a sacred temple that combines contemporary art and industrial heritage; it is a three-dimensional city, where every layer of crafts in the air will be transformed into

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Night Scene Photo of No.3 Blast Furnace Museum

streets, squares, courtyards and urban arenas in three-dimensional space; it is the Babel that leads to dreams and a new landmark of urban regeneration that Beijing will be proud of.

However, for a long time, this production-oriented city has existed only as an abstract concept related to steel, while the changes of every specific person, every Shougang employee and their family living on the 8.63 square kilometers in the western suburbs of Beijing have perhaps been ignored. The best way to understand 'Shougang People' is to trace the tail of times and walk into their real life. With the expectation of exploring the grand transformation of China's urban development represented by Shougang from the micro and concrete level of individual and family narration, we interviewed an engineer from Shougang Designing Institute and his families, providing a father and son narrative without limits of space and time which allows us to examine this particular slice of history from a humanistic perspective from those eventful years.

As the witnesses to the great renewal of Shougang, we wish to present this exhibition to pay tribute to all the people of Shougang, to the great changes and magnificent turns there in the past century.

In this way, surrounding the Shougang No. 3 Blast Furnace Museum regeneration project, and following the human clues, we carry out the textual narration of Shougang story in this great urban renaissance wave.



Fig. 1: The complex was built on former marshlands rendered arable by the land reclamation schemes of the Fascist regime. Photo: 1950, Archivio storico SNIA Viscosa - Fondo fotografico positivi / Segnatura: FFSC_A02-033.

ITALY

INDUSTRIAL HERITAGE OF THE MODERN MOVEMENT: TORVISCOSA FACTORY TOWN

Anna Frangipane and Maria Vittoria Santi, Udine University

From the mid-1930s onwards SNIA Viscosa, a large, privately-owned Italian company headed by Franco Marinotti (1891-1966), built a model factory and adjacent company town for the production of rayon fibers from cellulose (Fig. 1) in the lowlands of Friuli. The entire project conformed perfectly to the policy of economic autarky instituted by Benito Mussolini after international sanctions were imposed following Italy's invasion of Ethiopia in 1935.

The settlement was inserted within the infrastructure of roads and drainage canals that developed over the centuries on the traces of the ancient Roman grid. The location took advantage of the new productive potential of the terrain, which had been made arable year-round by means of embankments towards the nearby lagoon on the Adriatic Sea and powerful drainage plants.

The factory and town were given their initial forms by Giuseppe De Min (1890-1962), an architect who had already gained distinction in Milan for his Garage Traversi, an important building in the Modern style that had also been commissioned by SNIA under Marinotti's leadership. De Min would continue to work with the company almost exclusively.

Inaugurated by Mussolini on 21 September 1938, the factory consisted of a series of rectangular red brick buildings with large windows in a re-elaboration in the Modern style of the textile plants

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Fig. 2: Piazza del Popolo: the Palazzo Comunale (City Hall) in a photograph from 1940. Photo: Archivio storico SNIA Viscosa - Fondo fotografico positivi / Segnatura: FFSC_A25-37



Fig. 3: The workers' housing, known as the colombaie (dovecotes), in a photograph from 1950 (Archivio storico SNIA Viscosa - Fondo fotografico positivi / Segnatura: FFSC_A22-054)

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Fig. 4: The factory is dominated by a pair of process towers in the form of stylized fasces, an unmistakable symbol of acknowledgment of the role of the Fascist regime. Photo: 1938, QUI MANCA IL RIFERIMENTO D'ARCHIVIO.

of northern Europe. Vintage photos show the striking forms of the plant standing isolated against the backdrop of the Friulian plain.

The lives of the workers (up to 5000 people) were regulated by a paternalistic management style that would continue after the fall of Fascism. Worker housing was built around a 'meta-physical' town square containing the Town Hall (Fig. 3), Theater, and Ristoro (workers' club) and sports facilities, and arranged by hierarchical zones: factory workers, clerks, middle and upper management etc. Rural housing was distributed across the surrounding countryside in well-organized agricultural communities (Agenzie).

The manufacture of textiles was gradually replaced by chemical products. This permitted the factory to maintain its role as an important industrial center on a national level and within an extensive network of similar factory complexes owned by SNIA throughout the world.

In the 1980s, the value of the planned town of Torviscosa as industrial heritage of the Modern Movement began to be appreciated during a delicate period of its recent history. The individual lodgings were being sold to local families at subsidized prices, meaning that the company no longer controlled ongoing maintenance of the buildings. This opened the door to scattered, arbitrary and disorganized modifications and repairs. At the same time, the issue of building permits for projects not connected with the original company town gave rise to a 'ring' of single-family houses of no architectural value, causing irreparable damage to the unity of the entire complex. Studies concerning the historical, urban, and architectural aspects of the original settlement helped develop awareness on the part of the local community, leading to the opening of Torviscosa's information and documentation center (CID_Centro di Informazione e Documentazione), which has been run by the city since 2009. Exhibitions and encounters at the center illustrate the most important aspects of the transformation of the territory and the construction of the company town, while temporary exhibits present in-depth studies on special topics. The exhibitions, the website devoted to Torviscosa (www.cid-torviscosa.it/en/) and the organization and digitization of the SNIA archives – saved from dispersion after the company went bankrupt – are jointly financed by the city and by the Bracco pharmaceutical group, which took over part of the factory a few years ago. The activities of the center are overseen with great devotion by both city executive and private citizens.

Because of the unique history and architectural qualities of the complex, a series of planning constraints are currently being prepared by the Superintendency of Archaeology, Fine Arts and Landscape of the Region of Friuli Venezia Giulia. The process has been accompanied by investigations into the building types, techniques and materials used in the residential parts of the settlement. The studies, carried out over a period of three academic years (2014-2017) as laboratory coursework by a total of 80 students completing their Master's in Civil Engineering at the University of Udine, encompass 12 different building types found within the town and surrounding agricultural land.

The aim of both the research and planning constraints is to foster the protection and appreciation of the planned town of Torviscosa and surrounding areas. The Region of Friuli Venezia Giulia has provided a research grant to promote awareness of the complex through the creation of an informational network on the topic. This article is a first, essential contribution to that project.

Contact the author



Panoramic view of Mairinque village railway station, with the station in the center; workshop buildings on the right and the railway village in the foreground. Photo: Rafaela Rondon Rogato Silva, 2017.

BRAZIL

BRAZILIAN COMPANY TOWNS AND RAILWAY VILLAGES

Dr. Eduardo Romero de Oliveira, São Paulo State University - UNESP

Company towns arose in Brazil at the end of the 19th century and proliferated in the middle of the 20th. Although they are not restricted to these places, some good examples are the railway villages of Paranapiacaba (1894), Mairinque (1904), Caieiras (1890), Tres Barras (1911), Forlandia and Belterra (1927), Monlevarde (1934), Volta Redonda (1941), Xerem (1945), Serra do Navio (1943), Ilha Solteira (1966), Turucuí (1974) and Carajás (1980). The histories of these settlements demonstrate their importance as industrial remnants and the different stages of industrialization, as well as illustrating how the conservation of the industrial heritage has progressed in Brazil in recent years.

It can be stated that some towns formed in Brazil, still in the 19th century, with many characteristics of company estates, are those

linked to the railway companies. In these, the production of the space aims not only towards the organization of production but, furthermore, at the strict control of the workforce, very similar to manufacturing centres in Europe and the USA. These are railway villages where the maintenance and operation workshops were concentrated, forming a railway industrial complex.

We highlight the town of Paranapiacaba (São Paulo), which was built in 1894 by the English company São Paulo (Brazilian) Railway Company in a line of 120 km that connected the port of Santos to the agricultural hinterland of São Paulo State. In this place there were maintenance workshops and the operation of mechanical inclined planes due to the use of funicular systems in this mountainous region. The typology and distribution of the houses were planned according to functional hierarchy, apart from ordering circulation and allowing for the control of the railway tasks. The British company ceased operating the line in 1946, and it then came under the control of the national state-owned company. In 1996 the concession was taken up by a private company MRS Logística S.A. Since the 1970s Paranapiacaba has been one of the main rail freight corridors (mineral and agricultural commodities) in Brazil.

Currently the village belongs to the municipality of Santo André



The houses were built with setback front gardens, something uncommon in Brazil at this time.

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and the houses are privately owned. Between 2002 and 2008 there was a stronger preservation historical master plan, the workers' building restoration being harmonised with some tourist infrastructure. Along the Serra do Mar mountain range and near the São Paulo metropolitan area, the site grew as an area for leisure and ecological tourism for the residents of the capital.

The village obtained legal protection from the Institute of National Historical and Artistic Heritage (IPHAN) in 2008, a few years after it was listed by Sao Paulo State, which privileged the urban site and leased not only the funicular system, but also other elements such as the water supply system and the containment and rainwater drainage system along the line. Despite protecting of urban planning and their labour force control mechanisms, we were unaware of the railway industrial system extending through the mountains. Now the World Heritage submission of the Cultural Landscape of Paranapiacaba the village (vila Martin Smith) and railway system in the Serra do Mar Mountain Range is being prepared.

Another example of company towns which also shows the conceptual difficulties facing protection is the district of Mairinque, built in 1904 by the Sorocabana Railroad Company, where maintenance workshops, the village for workers and urban infrastructure coexisted. Initially, an urban railway site became an open real estate development. Rail transport operation continued to be the main economic activity until 1930, and the railway core was limited to a few blocks; but the urban infrastructure built by the Company was transferred to the municipal public administration only in the 1960s. Now the private company America Latina Logística S.A. operates the freight railway transport.

The legal protection of Mairinque by the IPHAN was directed only to the architectural design of the station building (by architect Victor Dubugras, 1868-1933), since 2004 a municipal public administration building. The protected area was extended to the railroad yard and railway workshops as well, but did not contemplate the sanitary urban planning and urban equipment proposed for the worker village by engineer Alberto Kuhlmann (1845-1905). As the declared protection emphasizes the historical-architectural values, the social dimension of the industrial complex is only partially acknowledged and protected. This situation reflects an older monument heritage concept applied to the industrial remains, when it is unaware of the current cultural heritage conceptions which have come with an industrial archaeological overview.

Finally, few railway villages are protected until now by the national institute or state commissions. However, since 2007 there are hundreds of railway buildings across the country listed (see TICCIH Bulletin, #81). If the station buildings (67 protected) had been highlighted since the 1970s, the workers villages have been recognized during the last decade including warehouses, workshops or roundhouses as part of the railway system. The law nr. 11.483/2007 of Brazilian railway heritage and the railway national list takes a fresh look at these sites. Now industrial remnants (social, technological or work aspects) as cultural heritage have been accepted by both new heritage professionals and the stakeholders or community as well.

Opinions expressed in the Bulletin are the authors', and do not necessarily reflect those of TICCIH. Photographs are the authors' unless stated otherwise.

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TICCIH is the world organization for industrial archaeology promoting conservation, research, recording and education in all aspects of industrial heritage. It holds a triennial conference and organises interim conferences on particular themes. Individual membership is \$30 (USD), corporate membership \$65, and student membership. \$15

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

The **TICCIH Bulletin** welcomes news, comment and (shortish) articles from anyone who has something they want to say related to our field. The Bulletin is the only international newsletter dedicated to industrial archaeology and the conservation of the heritage of industrialisation. The TICCIH Bulletin is published online to members four times a year.

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Historical photo with partial view of the Caupolicán square and side facade of the gym. Year 1930 circa.

CHILE

RESTORATION OF SCHWAGER GYM, CORONEL

Dr. Arq. Jaime Migone Rettig, TICCIH Chile President, Member of TICCIH Board

600 kilometers south of Santiago, in the Arauco gulf, the most important coal mining complex in Chile developed uninterruptedly from 1854 until its forced close of operations in 1995. As in similar contexts during the last decades of the 20th century, this generated a great economic and social crisis.

Coal production was initiated by English entrepreneurs such as Federico Schwager and later developed by local businessmen such as Matías Cousiño, Jorge Rojas and Guillermo Délano, among others. It especially supplied ships that, passing through the Strait of Magellan, traded between Europe and the west coast of Canada, Mexico and the United States. Later, with the development of the

railroad in the south of the country, coal production extended its use. In addition, coal was exported through these same ships to Europe and the rest of the world, given its high quality and low production costs.

The great coal boom in Chile was consolidated by entrepreneur Isidora Goyenechea, who in 1873 took over the exploitation company of Lota and Coronel, becoming the wealthiest woman in the world at the time and turning these cities into milestones of social and economic development. The railway, wood and several minor industries such as brick, ceramic and crockery production were strengthened. Furthermore, the application of the urban model of the company towns for Lota and Coronel was also consolidated: initially mining camps and nowadays cities, they have hosted all the mining population for more than a hundred years.

Coal mining became the most important economic activity in the area, and a lever of development for the south-center of Chile. Its closure at the end of the 20th century had multiple consequences for the entire region and its local population, meaning the closure

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Historical Photo of the Workers' Pavilion of the Puchoco Population. Circa 1920.

of not only industrial institutional buildings, but also administrative and social ones, as a result of their inactivity.

Among the representative buildings of the coal boom period is the Lota Schwager Gym, designed by Hernán Vega, architect of the Welfare Department of the Schwager company which built it in 1930. The building was severely damaged by the 1939 earthquake and rebuilt by architects Ramón Acuña and Alberto Risopatrón. The gym is located in the Plaza Caupolicán of the Puchoco neighborhood. This set is part of the company town that housed the entire population of workers, employees and engineers that formed the mining company. The building was created for cultural and sports entertainment, especially for workers and their families. It held a reception room, galleries, dressing rooms and a recreational sports space. It was also one of the first buildings built in reinforced concrete and its roof structure executed in wooden lamellae with a semicircular vault shape.

The aesthetics of the building corresponds to an industrial style with hints of Tudor in its modernist reinterpretation, very popular in the 1930s. Although it was a building for a coal mining industrial area, its eclectic design proposal is relevant as an example of the

architectural avant-garde of the moment. The citadel of Coronel, in which the gymnasium is located, was declared a Typical Zone by the Council of National Monuments in 2010 which confers legal protection.

The project for the valorization and restoration of the building was held through a public contest. The project highlights the recovery of the structural solution of the roof, which was originally inspired by the wood solutions developed by the German architect and engineer Friedrich Zollinger (1880 - 1945). There are no references to other similar projects prepared by this great innovator of German architecture, who developed solutions for social housing and new buildings during the early 20th century.

The great German migration to the south of Chile during the 19th century led to the exchange of constructive technologies, especially those based on wood, an abundant economic resource in this area. This defined a context of cultural and constructive transfer that is appreciated in multiple buildings and architectural ensembles in the south of the country.

The historical, urban and architectural study of the building, as

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well as the citizen participation process involving the miners and inhabitants of Coronel and Barrio Puchoco, highlighted the great importance that this space had for its inhabitants. To this day, the building has a great value both for its role in social cohesion through the sports and social activities that took place as well as for being an urban landmark within the Puchoco neighborhood.

During the 1980s the building suffered a fire that destroyed its roof, wooden structure and interior, leaving only the perimeter walls. The innovative structural solution for the roof of the gym completely disappeared as part of this tragedy. Despite the precariousness and state of semi-abandonment of the remaining ruin, its high quality construction and design allowed it to outlast the major earthquakes of 1985 (Richter 8.2) and 2010 (Richter 8.8).

Our renovation proposal is inspired by Friedrich Zollingery's semi-circular vaulting solution, establishing a lamella-like structural system inspired by the original. The main feature of this structure is

the development of a unique wooden element, which is repeated and used throughout the entire length of the vault. This element is a piece of pine wood 2x8' with a small reduction in its ends, forming rhombuses, some of which are divided in half to reach the supports in the wall. 3' nails are used as metallic joining elements and its construction is a very simple operation, which makes it a very fast construction system. Furthermore, given Chile's seismic character, this system defines in its base and support, indeformable triangles, making it resistant to dynamic stresses associated with an earthquake.

The rest of the building and its value-added solutions are associated with the integral recovery of its original figurative image, which is why the reinforced concrete elements are repaired as well as their stuccos and cement mortar decorations on the exterior facades.

IRON & STEEL, CONTINUED

ferent sizes, but follow the standard pattern of the steel-cladded furnace with refractory bricks and independent scaffolding for maintenance and charging stages. Differences lie in the charging systems: While most of the furnaces use skip inclines, the Maxhütte used a bucket system with vertical elevator and Völklingen a complex suspended monorail system with powered skips. Also only Völklingen keeps the original sintering plant with four bands, a pioneer installation developed by the Lurgi company on the basis of the Dwight-Lloyd-process.

B. CONSERVATION AND RECONSTRUCTION POLICIES

Experience of the last twenty years shows a certain similarity in the saving, conservation and use of blast furnaces plants as monuments. After the end of production there is mostly some time of non-activity, with neglect or in the worst case cannibalisation and vandalism of the plants. Some of the above mentioned examples still remain at this stage, others are kept well protected, but with no further conservation activities. In the second stage, after political discussions and final acceptance, the raising of funds and developing of long term plans, first activities for serious conservation and restoration works start. Some examples like Yawata, Sagunto and Hattingen were professionally rebuilt in a short time as monuments and museum-pieces, mostly in a 'like new' look. Other examples follow a different approach, as executed in Sloss, Nizhny Tagil, Völklingen, Duisburg-Meiderich and Vitkovice: In a long-term program, step by step conservation and repair works are executed if and when necessary, either by jobless workers schemes or

on demand by professionals. Both approaches can lead to different results, the second seems to be more 'monument-sensible' and is sometimes cheaper.

C. ADAPTIVE REUSE

Most raw iron plants are situated on vast sites with plenty of open spaces, so large areas can easily be reused. The names Memorial Park Yawata, Landscape Park Duisburg and parque fundidora Monterrey give already an impression of the ongoing, but now public use as industrial landscape. Similar plans exist for Bagnoli. Workshops and administration buildings may easily be reused, as can be seen in Duisburg, where nearly all buildings have new occupants and users. But adapting complex technical structures and aggregates, like the blast furnace itself and his related machinery is nearly impossible. In the examples of Dortmund and Belval, adaptive reuse is very dense and intensive. Large areas of these sites will be built up with new, so called future industries, like laboratories, development centers and offices. The blast furnaces will only remain as historic islands confronting a modern neighbourhood. The sites of Voelklingen, Hattingen, Nizhny Tagil and Starchowice are purely museums of their own. Voelklingen as a World Heritage Site demands the greatest efforts in authenticity and conservation.

Contact the author

The second part of this article will appear in the next issue of the TICCIH Bulletin.

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CUBA

THE BAY OF HAVANA'S INDUSTRIAL LANDSCAPE

Professor Marion Steiner, Pontificia Universidad De Valparaíso, Chile/Germany

In 1998 Cuba hosted TICCH's 2nd Latin American Colloquium on Industrial Heritage and almost two decades later the country hosted the 8th one in 2016. On November 26 - 27 last year an international workshop on Industrial heritage in the Bay of Havana, an opportunity for the capital's economic and cultural development, was organized by the **Plan Maestro** team at the City of Havana's Oficina del Historiador in the framework of an international best practice transfer project run by the Tecnalia foundation from the Basque country, Spain, with funding from the Basque government and the European Union.

Old Havana and its fortifications have been a World Heritage site since 1982, and when the Cuban government relocated the old port of Havana and opened the new one in 2014, UNESCO asked for defining buffer zones in the management plan for the existing World Heritage site. On this occasion, the National Commission for Monuments declared 2,000 hectares of land and water surface

in the Bay of Havana as a nationally important monument area and nature reserve. At the same time, the City of Havana began to develop a management plan for the integrated and sustainable development of the bay, a huge challenge consisting in Cuba's opening to international tourism. In the face of rising land prices, the city wants to benefit from the new opportunities for economic development while maintaining its bay's extraordinary industrial and natural heritage.

During the workshop, the current management plan elaboration process was presented and the next steps discussed. After an overview on industrial heritage preservation in Cuba by Ilka Pell from the National Council for Cultural Heritage, Kiovet Sánchez from the Plan Maestro team presented the results from the extensive research this team has been carrying out over the past years, preparing the Management Plan for the Cultural Heritage in the Bay of Havana. This work was supported by the European Union and the City of Barcelona within the framework of a project called Integrated participative and sustainable management for the local development of the Historic Quarter and the Bay of Havana. The current advances of the management plan have recently been published and are accessible online (see www.planmaestro.ohc.cu/publicaciones).



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TICCIH: The International Committee for the
Conservation of Industrial Heritage

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James Watt and the Steam Engine - the Dawn of the Nineteenth Century by James Eckford Lauder (Google Art Project)

UK

CELEBRATING THE GENIUS OF JAMES WATT

***Dr Miles Oglethorpe, Celebrating James Watt 2019,
Historic Environment Scotland***

2019 is an important year for industrial heritage in Scotland, and for James Watt in particular. Born in Greenock, Renfrewshire in 1736, Watt is one of Scotland's most prominent inventors and engineers, his work over a long career ranging from relatively small-scale instrument-making to involvement in major civil engineering projects, such as the deepening of the River Clyde, the Forth & Clyde Canal, and the development of Glasgow's water supply.

It was his invention of the separate condenser when working at Kinneil House (now a Historic Scotland 'Property in Care') in Bo'ness which created the step-change in efficiency that drove the Industrial Revolution. Watt eventually received the patent for his invention 250 years ago on January 5th 1769. Fifty years later on 25th August 1819, he died in Handsworth, Birmingham having co-established the hugely successful Boulton & Watt company with partner Matthew Boulton.

Much of the focus in 2019 will be on celebrating the 200th anniversary of Watt's death. A new website www.jameswatt.scot has been launched with the aim of promoting forthcoming events and highlighting Watt's ongoing significance. Although these activities are currently focused primarily on the UK, we would like to extend the celebrations to embrace the entire TICCIH network, recognising that Watt's influence extended far beyond his native country. With this in mind, if any Bulletin readers are thinking of organising an event or have Watt-related information from their own country, please contact the webmaster at adrian@thepr-store.co.uk.

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El Palacio de Aguas Corrientes Reservoir; Buenos Aires, conceived by hydraulic engineer John La Trobe Bateman as a large model kit, and assembled between 1887 and 1894.

ARGENTINA

THE INTERNATIONAL COUNCIL ON MONUMENTS AND SITES (ICOMOS) BUENOS AIRES ANNUAL GENERAL ASSEMBLY 3-6 DECEMBER 1918

Stephen Hughes, TICCIH Secretary-general

I have been to three ICOMOS Triennial General Assemblies in recent years but this was my first time attending one of the smaller Annual General Assemblies latterly necessitated by French Charitable Law. For TICCIH this was a particularly important meeting: firstly the new ICOMOS Industrial Heritage International Scientific Committee (IH ISC) had formulated its bye-laws during the year and these were being considered for approval, and secondly there was a need to review the first year of the joint TICCIH-ICOMOS Action Plan, progress on the second year of the plan and how it might be amended for future years. The new President of TICCIH, Miles Oglethorpe, attended, as well as myself as Secretary-general. A total of about 150 international delegates attended at the centre of the Buenos Aires urban area with its population of 18 million. The much smaller scale of the ICOMOS annual assemblies

(perhaps one-tenth the attendance of the triennial general assemblies) does allow much greater interaction between delegates, the ICOMOS Board, and officers.

The venue of the first two days was a former 18th century convent converted into the Cultural centre of the Recoleta area. The convent is attached to what is often considered the top tourist attraction of Buenos Aires: the walled cemetery of Recoleta. The Argentinian industrial and mercantile elite of the 19th and early 20th centuries are buried here in long streets of one- and two-storey classical, gothic, Art Nouveau and Art Deco tombs. The British influence in Argentina is evident in one huge iron obelisk cast in the 1820s.

The second day of the Congress there were ICOMOS regional meetings and I represented ICOMOS-UK in attending the European Meeting, chaired by ICOMOS vice-president Grellan Rourke (ICOMOS-Ireland) with 40 delegates. A main part of a very positive discussion reviewed the considerable success of the Year of European Cultural Heritage including an important joint project with the European Union designed to ensure that future EU-funded projects maintain high standards of conservation. ICOMOS-Spain has now been reformed and re-activated and was warmly welcomed back. I mentioned the formation of TICCIH-Europe to the delegates and Grellan Rourke, who is TICCIH's contact point with ICOMOS, explained the close

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The cast-iron internal structure, manufactured by the Belgian Marcinelle et Couillet foundry group, has 180 columns on three floors that accommodate 12 water tanks, capable of holding 72,700,000 litres of water. Two of the tanks store archives of historic plans of Buenos Aires and its sewerage network.

working relationship between the two organisations with the Memorandum of Understanding (MOU) and the series of two-year action plans to implement it.

The latter part of the morning was occupied with a relatively new type of session of the meeting of the 'national committees'. There was some talk of the need to cease any three-yearly reporting by national committees which should be totally replaced by annual reporting for both international and national purposes. There had been a hope that well-established national committees would form links with, and mentor, newly established national committees but there was little evidence that this had been done. The ICOMOS secretariat had been establishing which national committees were defunct, or largely inactive, but were finding it difficult to obtain adequate information.

There was a parallel session organised exhibiting the work of emerging professionals in the field of Sustainable Development. Much of its success is due to emerging professionals themselves enthusiastically running the initiative. It had been decided that there should be no upper age limit on this group but rather that the definition should depend on the stage of an individual's career in conservation issues.

The TICCIH President, Miles Oglethorpe and myself, as Secretary-General, had a lunch-time meeting with two of the ICOMOS vice-presidents, Grellan Rourke and Laura Robinson (Honorary

Treasurer, ICOMOS-South Africa) to discuss the continuance and expansion of the joint two-year action plan between ICOMOS and TICCIH.

In the afternoon there was a meeting of the Scientific Council with reports from the various International Scientific Committees (ISCs). I've been on the advisory-panel of the new Industrial Heritage ISC (IH ISC) since it was formed at the Florence General Assembly in 2016. Its bye-laws of operation were approved by the Scientific Council and passed onto the Advisory Committee (ADCOM) and then the General Assembly for approval. It was later passed by both these institutions and there will be a call for members, the appointment of officers, and the start of a workplan in the coming year.

The following morning was the General Assembly with a financial report from the Honorary Treasurer, Laura Robinson. The ICOMOS President's Report by Toshiyuki Kono (ICOMOS-Japan) had been circulated earlier. Patricia O'Donnell (ICOMOS-USA) proposed that ICOMOS should facilitate receiving donations and building an endowment scheme in addition to solely using income derived from subventions from the national committees and sections. It had earlier been made clear that the Secretariat in Paris had appointed an extra member of staff whilst at the same time recognising that some national committees were having difficulties paying their dues.

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The Advisory Committee then reconvened for a further session during which elections were held for officers of the National and Advisory Committees and the Scientific Council. Mikel Landa of ICOMOS-Spain, and President of the Wood ISC, was elected President of the ICOMOS Advisory Committee and Douglas Comer (ICOMOS-USA) was voted in as vice-President. Sheridan Burke and Christian Gustaffson were elected to join the Existing officers of the Advisory Committee while Deidra McDermott continues as an officer.

On Day 5 of the congress, the Scientific Symposium was held in the planned industrial port city of La Plata with its huge cathedral, claimed to be the largest of the 20th century. The subject was 'Sustainability: Cultural Heritage and Sustainable Development'. A highlight of two very successful 'brainstorming' sessions which clearly showed the collective expertise of the assembled delegates to advantage. The first was on 'Indicators for Sustainable Heritage

Management in Historic Urban Landscapes'. The second, which Miles Oglethorpe and I attended, was Patricia O'Donnell (ICOMOS-USA) and Christophe Rivet's (ICOMOS-Canada) groundbreaking seminar examining the continuing economic function of Cultural Landscapes. This provides TICCIH with a great opportunity to work together with the ICOMOS Cultural Heritage International Scientific Committee in further exploring the issues concerning continuing mining in some World Heritage Areas and we will actively pursue liaison on this subject.

ARGENTINA

WORKING WITH ICOMOS

Dr. Miles Oglethorpe, TICCIH President

As Stephen Hughes reports above, both he and I were lucky enough to be able to attend the ICOMOS General Assembly last December, which was held in Buenos Aires. Sadly, there was not sufficient time to explore in any detail the industrial heritage of Argentina, but we did get a brief taste of what is an extraordinary country – as an example, the capital's railway stations are awe-inspiring.

Meanwhile, we had an opportunity to familiarise ourselves in more detail with the workings of ICOMOS, and met some great people. Industrial heritage seems to have become mainstream, and was constantly mentioned in routine business, which is encouraging. So, we very much appreciated the invitation to attend and I think our ICOMOS colleagues appreciated that we were there.

Our presence was especially important in the context of the establishment by ICOMOS of a new International Scientific Committee (ISC) devoted to Industrial Heritage, which will move ahead during 2019. Readers will be aware there were some misgivings about this proposal within the TICCIH membership and the Board, not least because of worries relating to potential duplication and sustainability questions in many countries. However, we see significant advantages in our two organisations building on an already close relationship, so we will do our best to assist as the new committee takes shape.

One of the most important areas of collaboration is TICCIH's specialist role providing advice on industrial heritage in relation to World Heritage, and especially with the evaluation of nominated sites. World Heritage is not a simple topic, and one of the big challenges is a widespread misunderstanding across many countries of what it is, and of the benefits that it can potentially deliver. For this reason, ICOMOS ran a morning session in Buenos Aires during which speakers shared their expertise covering all the key stages in the World Heritage process, from inclusion on national tentative lists to evaluation, inscription and the subsequent management and reporting cycles.

It turned out to be an inspiring morning, even to those of us who have been personally involved with and are well-versed in World Heritage. It was therefore decided to replicate the session in future ICOMOS events, including next year's General Assembly (also interim) in Marrakech, and the main event in Sydney, Australia in 2020. Stephen and I will be going to both these General Assemblies to fly the TICCIH flag and to help steer the creation and evolution of the new ISC. If there are any TICCIH members who are also considering attending these events, we would greatly appreciate their support, and they in turn should benefit from a thoroughly rewarding immersion in the World Heritage process.

CONFERENCE REPORTS



The former gas works in the Bay of Havana. Foto: Marion Steiner.

CUBA

TICCIH CUBA

Professor Marion Steiner, Pontificia Universidad De Valparaíso, Chile/Germany

TICCIH Cuba exists as a group since the 8th Latin American Conference on Industrial Heritage in Havana during 2016 when they were invited to join TICCIH as the Cuban group. TICCIH Cuba members include institutional representatives from the National Council for Cultural Heritage with its President Gladys Collazo, its Vice-President Nilson Acosta and Ilka Pell from the Monuments Department who is acting as TICCIH Cuba's Secretary. Other members work at the municipal or provincial level in public institutions across the country managing World Heritage sites. The Cuban institute on sugar heritage is rep-

resented, and ICOMOS Cuba is on board, too, including their former presidents Dr. José E. Fornés and Dra. Ángela Rojas, who founded the Master of Science in Heritage Conservation at the Technical University of Havana CUJAE many years ago. Participation of university professors is important, and CUJAE is leading here, their master having been the first of its type in Cuba. The master's present coordinator is Dra. Karen Sanabria Ortega, Full Professor at the Faculty of Architecture and elected President of TICCIH Cuba. The faculty's Vice-Dean Dra. María Victoria Zardoga coordinates the only diplomado (professional certificate) in industrial heritage that exists to this day in Cuba, it's actually one package of the master. TICCIH Cuba also benefits from the expertise of professors from other universities across the country, for example in Camagüey and Santiago de Cuba.

TICCIH Cuba is currently working on an inventory of the coun-

CONFERENCE REPORTS

try's industrial heritage. In 2019, the group will focus on sugar heritage in order to complete the Cuban tentative list for World Heritage nominations. All information will be available on the new TICCIH Cuba's website to be launched soon.

TICCIH Cuba is very interested in pushing forward education on a continental scale, also as a possible funding source for international travelling and exchange. As the wages of Cuban professionals are very low, participation in conferences taking place outside their country is very difficult. However, they are intrigued by the idea to create a Latin American Master on Industrial Heritage, following the European example of Erasmus Mundus between Padua, Paris-Sorbonne and Évora.

Another issue is the longstanding proposal to reconceptualise the prevailing European interpretation of industrial heritage from a (Latin) American perspective. More than 'industrial heritage', they talk about the 'heritage of production'. The Cuban point is to consider not only elements created by the Industrial Revolution, but all those associated to agro-industrial production since the Iberians have been arriving in the XVth century searching for metals and mineral resources.

Finally, the relationship TICCIH-ICOMOS is a crucial issue. TICCIH Cuba is not yet an officially recognised national group. However, many of its members are collaborators of ICOMOS, so with regard to industrial heritage, the relationship between ICOMOS and TICCIH in Cuba is very deep. The Cuban experts feel a real need for being officially recognized as TICCIH Cuba.

Recent conversations on the international level seem to justify hope that a closer relationship between ICOMOS and TICCIH could be developed via the new ICOMOS International Scientific Committee on Industrial Heritage (see the TICCIH President's note on the ICOMOS GA above). For TICCIH Cuba, a shared membership for both organizations would be the ideal solution.



Marion Steiner, Antoni Vilanova, Kiovet Sánchez and Ilka Pell at the Tallapiedra power plant. Foto: Marion Steiner.

That way, many industrial heritage experts that are ICOMOS collaborators would become TICCIH and ICOMOS members at the same time, joining forces for the further development of their international networks.

IRAN

TICCIH IRAN

TICCIH national representative of Iran has continued its activities since 2012. After signing a memorandum with TICCIH in 2018, the national committee is officially working as a well-established organization and a subsidiary of the Research Institute of Art and Culture of the University of Tehran. The chairman of the committee is Dr. Pirouz Hanachi, the current mayor of Tehran. Dr. Mohammad Hassan Talebian, En. Arash Mozaffari, Dr. Ahad Nejadbrahimi, Dr. Mohammad Javad Mahdavinejad, Dr. Somayyeh Fadaeinejad, and Sara Taymourtash are the main committee members.

Among the activities carried out in the field of industrial heritage by the Iran national committee are organizing conferences and workshops, promoting the registration and reuse of a number of historical factories and industrial sites, and publishing articles in relevant journals. Furthermore, some research projects have been conducted at the national level such as 'Industrial heritage from concept to the case' by Pirouz Hanachi and Sara Taymourtash. Another example is obtaining approval of the supreme council of architecture and urbanism for the conservation of industrial heritage at the national level policy. We hope to have an opportunity for international cooperation in this regard.

CONFERENCE NEWS



The Baltimore & Ohio Railroad's bascule bridge over the Chicago River at the Chicago Terminal is one of many engineering and industrial landmarks in the city. Photo Credit: Historic American Engineering Record

USA

SOCIETY FOR INDUSTRIAL ARCHEOLOGY 48TH ANNUAL CONFERENCE, 6-9 JUNE, 2019, CHICAGO, ILLINOIS

The Society for Industrial Archeology will hold its 48th Annual Conference 6-9 June, 2019 in one of the foremost industrial cities the United States: Chicago, Illinois. Chicago was historically—and remains today—a major manufacturing center and transportation hub. Activities surrounding the conference will explore Chicago's major past and present industries including rail transportation, meat processing, and steel production. Chicago was also a major center for Great Lakes shipping, electronics manufacture, candy production, and the printing industry along with more specialized fields of manufacture such as musical instrument, pinball machine, and jukebox production.

The city was also a center of innovation in industrial building construction. Structures reflecting this legacy, along with notable high-rise buildings, bridges, and the nation's first planned industrial parks, can be found throughout Chicago.

Tours of industrial heritage sites and active modern industrial facilities are scheduled for Thursday, 6 June and Friday, 7 June. Paper presentations will take place all day Saturday, 8 June. Presentations will address a range of industrial archeology and industrial heritage themes, with a regional emphasis on the Midwestern United States. One track of papers will be dedicated to the semi-annual Historic Bridge Symposium.

This year marks the 50th anniversary of the Historic American Engineering Record (HAER). HAER has had a close relationship with the Society for Industrial Archeology throughout the history of both organizations. Activities commemorating HAER's 50-year milestone will be part of SIA Chicago.

Planning is underway for a dedicated TICCIH session with a particular focus on international projects and world industrial heritage. The conference call for papers will remain open through 18 February. Find the call for papers and additional information about the conference at www.sia-web.org.

OBITUARY

ERIC DELONY (1944-2018)

Eric N DeLony, who served as Chief of the United States National Park Service's Historic American Engineering Record (HAER) from 1987 to 2003, died on 23 October 2018, after a long struggle with Alzheimer's disease. He was 74. Over his career, Eric became a pioneer of historic bridge documentation and preservation. He successfully campaigned for U.S. states to inventory, document, and preserve their historic bridges. A prolific speaker and author of numerous articles, he wrote *Landmark American Bridges* (New York: American Society of Civil Engineers) published in 1993. As recognition of his achievements, in 2000 Eric was the recipient of the General Tools Award, the highest honour bestowed by the Society for Industrial Archeology (SIA).

After graduating from Ohio State University in 1968, Eric was first hired as a summer architect on the New England Textile Mills Survey, a joint project of the Smithsonian (under the leadership of Robert Vogel) and the Historic American Buildings Survey (HABS). The following year he became a member of the very first HAER field team, for the Mohawk-Hudson Area Survey in 1969. This ambitious project documented several industrial sites and bridges in the Albany area, and team members were challenged to devise new recording techniques for manufacturing and engineering structures in a field where no established standards existed. His detailed elevation of the Troy Gasholder remains to this day as the logo of the Society for Industrial Archeology. Having completed his Master's in Historic Preservation at Columbia University, Eric was hired as HAER's first full-time employee in 1971. HAER began recording a variety of bridges and other industrial structure types as part of state and themed surveys.

Awarded a Fulbright Scholarship, Eric spent 1971-2 in England, initially at the University of Bath with Dr Angus Buchanan and Keith Falconer, the Survey Officer for the national Industrial Monuments Survey, with whom he travelled all over the UK photographing notable historic industrial sites and meeting with prominent figures in British industrial archaeology.

He then spent over a year at Ironbridge with Neil Cossons. His arrival there was melodramatic, appearing late one evening at the Cossons household by ambulance, his face the same colour as the bandage round his head, having had a car accident driving to see the nearby Buildwas Bridge. He lived in a museum house in Coalbrookdale, to be joined later by his then wife, Sandra, and their children, Rielyn and Theodore, and participated actively in the work of the Museum Trust. Bridges were already a compulsive preoccupation, commanding an increasing amount of his attention. It was in his early days at Ironbridge that he set off to photograph Cound Bridge, cast by the Coalbrookdale Company in 1797 and believed to be the oldest iron bridge anywhere still carrying regular vehicular traffic. Here he fell into the river and



Eric DeLony on the top of the Forth Bridge in Scotland during the post-conference tour of the 2000 TICCIH Congress. Photo: Neil Cossons.

had to be rescued, his one concern being the safety of his precious Nikon which, when dried out continued to work perfectly. He made numerous expeditions to study important bridges, notably to France and Portugal to see the great works of Gustave Eiffel and others.

Returning to HAER, Eric established a rigorous procedure for the analysis and recording of historic structures and trained his survey teams to apply them. These stand to today as a model of impeccable standards of recording and are widely recognized internationally as an incomparable exemplar. He was instrumental in getting HAER to collaborate with industrial archeologists and preservationists in Europe and other countries and from 1984 consistently hired International Council on Monuments and Sites (ICOMOS) foreign exchange students for his summer field teams, a practice that continued for some twenty-five years. In 1987, Eric was promoted to Chief of HAER.

He represented the United States at several TICCIH meetings including the 2000 Congress in London and the XIV Congress in Germany. In this context of cooperation, Eric completed a global thematic study on historic bridges, generated in partnership with ICOMOS, that has informed numerous world heritage nominations. He also worked with prominent European scholars, including Barrie Trinder at Ironbridge and Louis Bergeron at Le Creusot, on various publications, exhibitions, and conferences. Another issue that Eric championed passionately and which has finally shown dividends was, after several decades, the addition by the U.S. del-

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OBITUARY

regation of the Brooklyn Bridge to its Tentative List for nomination as a UNESCO World Heritage Site.

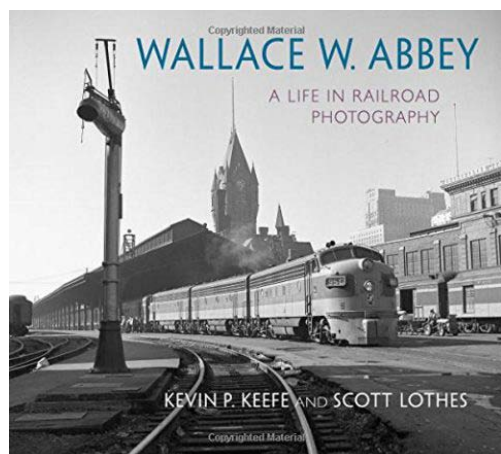
After retiring to Santa Fe, NM, in 2003, Eric became a bridge preservation consultant. Maintaining an email list called The Pontists he advocated for various bridge preservation causes and initiatives, and continued to write and teach.

Eric DeLony was an outstanding and fervent pioneer in the world of historic documentation, bridge preservation, and advocacy. The

3,000-plus bridges in the HAER Collection at the Library of Congress, and hundreds of other examples across the country and around the world, are all a testament to his professionalism and lifelong passion for saving historic bridges.

Compiled by Christopher Marston, Patrick Martin and Neil Cossons

PUBLICATIONS RECEIVED



Kevin P. Keefe and Scott Lothes, *Wallace W. Abbey: A Life In Railroad Photography* (Bloomington: Indiana University Press, 2018 for Madison, WI: Center For Railroad Photography and Art, 2018).

ISBN: 978-0-253-03224-9.

211 Pages. Hardcover, \$50.00 USD.

184 B&W Illustrations.

Betsy Fahlman, Arizona State University

Kevin P. Keefe and Scott Lothes have authored a handsome volume on the work of Wallace W. Abbey (1927–2014) whose career flourished during ‘the first golden age of railroad photography.’ Beginning in the mid-1940s, Abbey developed his ‘journalistic and artistic vision’ as a reporter, photographer, and public relations executive to create a large body of work that portrayed a broad spectrum of railroading spanning from steam to diesel. But he didn’t just thrill to the immense machines of railroading, he was deeply interested in the industry’s human element, and he wanted his photographs to reveal ‘how the average person experienced it.’ His images of dispatchers, engineers,

travelers, conductors, dining car staff, and others provide the human back-story of the great trains. This monograph chronicles the work and career of a man who got hooked on railroads as a child visiting his Kansas grandparents on the Oil Flyer and who pursued a career that enabled him to create a resonant document of an industry deeply steeped in the cultural character of America. The authors draw on a tremendous visual archive of 35,000 photographs in the collection of the Center for Railroad Photography & Art.

Growing up on the North Shore of Chicago, he remained grounded in the upper Midwest, a region he literally measured with his camera. The ‘Introduction’ details Abbey’s biography, and is followed by six thematic chapters, followed by a selection of images accompanied by informative captions. The first is titled ‘Along the Santa Fe.’ While Abbey found all aspects of railroading riveting, it was the famed Atchison Topeka & Santa Fe that remained at the top of his list. After graduating with a journalism degree from the University of Kansas, he was hired by the magazine *Trains* in 1950. Four years later the magazine published a 10,000-word eighteen-page article on the Santa Fe, the result of fourteen months of research traveling 6,300 miles throughout the railroad’s system. It was an exhilarating beginning to a long career.

Abbey’s next foray into railroad journalism is the subject of ‘The *Trains Magazine* Years.’ Arriving at the journal in 1950, the editors quickly realized that Abbey’s role was to ‘get out on the road and cover the hell out of what’s going on.’ He left in 1954 to take a position with a trade group, the Association of Western Railways. After two years with the association, he became western editor of *Railway Age*.

Abbey had been successful as a transportation journalist, as well as with an industry association. In 1959, he began to work in public relations, and this is the subject of ‘Soo Line Storyteller.’ He was the first professional in this position and worked hard to raise their public profile, including updating the color scheme of their

PUBLICATIONS RECEIVED

trains and logo to a distinctive bright red and light gray. He remained in this position until 1970.

Chicago was a busy railroad center (the subject of 'Chicago at its Zenith') and Abbey thrived on the activity he witnessed. It was a city where 'A passenger train left the city every fifty-one seconds, a freight train every thirty-five seconds.' During World War II, Union Station in Chicago 'handled as many as 300 trains and 100,000 passengers a day.' Traffic steadily declined in the post-war era.

Abbey 'knew his way around the steam locomotive,' and reveled in the sights and sounds of steam: 'the hiss of air compressors, the smell of rod grease, the heat from a boiler.' Recognizing that railroads needed to modernize in order to survive, unlike many of his photographic contemporaries, he embraced the new diesels (the subject of 'Class by Itself') as an inevitable result of progress.

When Abbey was at Trains, the Milwaukee Road was at its apex, with a fleet of sleek streamliners called the Hiawathas (the company also ran a 'Beer Line' for the many local breweries). By 1975, when he became their director of corporate communications it was a different story entirely, and the subject of the last chapter, 'Fighting for the Milwaukee Road.' The doomed railroad filed for bankruptcy in 1977, and Abbey finally retired in 1980.

The photographs of Wallace W. Abbey chronicle a great era of railroading. The romance of a head of steam and a piercing whistle have deep mythic roots in American history, and remain powerful visual icons of our landscape. His photographs reclaim both the thrill of travel and the sublime scale of the great trains whose rails connected a nation economically and personally.

COMING SOON

2019

TAIWAN

Water-As-Heritage International Conference, Taiwan International Institute for Water Education (TIWE), Chinese Taipei; ICOMOS Netherlands; LDE Centre for Global Heritage and Research (Netherlands).
May 2019, Date and venue(s) to be confirmed.

IRAN

Conservation of 20th Century Heritage from Architecture to Landscape
23-24 April, Tehran.
icc20ch.ut.ac.ir

MEXICO

Congreso Internacional sobre Patrimonio Industrial. Retos y Prospectivas en las Américas. CFP.
6 - 8 May, Monterrey, Nuevo León.
Information

UNITED STATES

Preservation of Industrial Archaeology and its Construction History, Association of Preservation Technology and the Construction History Society of America. CfP.
May 17, Chicago.
Information

UNITED STATES

Society for Industrial Archeology 48th Annual Conference
June 6-9, Chicago, IL.
www.sia-web.org

COMING SOON

POLAND

Technology and Power, ICOHTEC 46th Symposium.

22-27 July, Katowice. Includes 3rd ICOHTEC Summer School for PhD students and early career scholars.

POLAND

Big Stuff 2019: Preserving Large Industrial Objects in a Changing Environment

September, 12-13, Katowice, Upper Silesia.

Contact **Piotr Gerber**

FINLAND

Industrial Labour & Literary Culture in the Long Nineteenth Century: Piston, Pen & Press research project and the Finnish Labour Museum.

June 7, Finnish Labour Museum Werstas, Tampere.

www.pistonpenandpress.org



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