

TICCIH National Reports

2013-2015



XVI INTERNATIONAL TICCIH CONGRESS 2015

*Industrial Heritage in the Twenty-First Century,
New Challenges*

Lille, France, 6-11 September 2015

Edited by
Geneviève Dufresne and James Douet

**The International Committee Conservation for the Industrial Heritage
TICCIH Congress 2015
TICCIH National Reports**

The International Committee for the Conservation of the Industrial Heritage is the world organization for industrial heritage. Its goals are to promote international cooperation in preserving, conserving, investigating, documenting, researching, interpreting, and advancing education of the industrial heritage.

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Foreword

We are very pleased to offer this compilation of National Reports presented on the occasion of our 2015 triennial Congress in France. These reports represent much, if not all, of the breadth of activity, triumphs and, sadly, losses in the field of Industrial Heritage since our last Congress, in 2013, in Taiwan. From the 30 countries affiliated with TICCIH we listed at the beginning of 2015, 24 responded to the call: that is great and we thank all of the contributors.

This offering represents material from most of the nations where we have active members, and provide them in a new and exciting format. The digital rendering will, we trust, afford a broader spread of information, as well as allowing for greatly expanded access to information through active links to related material via the Internet. Readers can simply click on many relevant links to access significant amounts of detailed information not possible in a printed format. And while we have strived to distribute our former printed National Report documents widely, this format should result in greatly improved distribution through simple reference and sharing, as well as access via search engines. We hope this digital book will be a useful tool to conduct research, to compare, and to discover the constantly evolving and amazing field of Industrial Heritage.

Many thanks to Geneviève Dufresne, CILAC Vice-President and French TICCIH Representative, and James Douet, TICCIH Bulletin Editor, for their tenacity to obtain and to publish this first digital TICCIH National Reports.

Patrick Martin

TICCIH President 2009-2015

Florence Hachez-Leroy

Chair of TICCIH-Lille 2015

Australia

Helen Lardner, Australian TICCIH Coordinator, with Dr Iain Stuart

Introduction

The Australian national group of TICCIH is an informal grouping of heritage professionals with an interest in industrial heritage. It operates informally because of members' limited time and resources as they bear their own costs of participation. Most members are members of Australia ICOMOS and have involvements with ICOMOS Scientific Committees at a national and international level as well as with other groups such as the Australasian Society for Historical Archaeology or the National Trust.

The inaugural meeting of TICCIH in Australia was held at the Sydney Opera House forecourt in November 2007. Australian member Dr Iain Stuart continues to be active as a TICCIH Board member elected in 2009. Australia currently has 17 full financial members of International TICCIH.

Eighty-five members subscribe to the TICCIH in [OZ discussion group site](#). This keeps colleagues interested in industrial heritage in touch with each other and allows topical issues to be discussed. The chat group is moderated by Iain Stuart. TICCIH also has a Facebook page for communication to members.

Character of industrial heritage

TICCIH in Oz acknowledges the prior occupation of Australia by indigenous people and that - taking a broad definition of industrial heritage - there are places that have an indigenous industrial heritage value.

Industrial activities post-contact (the term for the arrival of non-indigenous people which occurred at varying times across Australia) include a mixture of pastoral, agricultural, maritime and extractive industries. There was a vigorous manufacturing sector buoyed by protective tariffs, Government assistance and the 'natural tariff' of the distance from the main manufacturing centres in Europe, USA and later Asia. Over recent decades the manufacturing industry has declined leading to the development of industries in the service sector and bio-technology. Farming and mining remain strong sectors of the Australian economy.

The bulk of Australian settlement has occurred along the coastal margins focusing on the major capital cities which are heavily urbanised. Urban development pressure has resulted in loss of industrial heritage sites as the economics of development mean that industrial sites are often redeveloped into high yielding residential or mixed use developments. Conversely rural industrial heritage is often overlooked as being remote and not prioritised.

At times Australian industry has been highly technologically advanced – the froth floatation technology was operationalized in the Broken Hill mines. In the late 1940s CSIR scientists built the fourth digital computer called CSIR Mark 1, which put Australia at the forefront of computing. It revolutionised everything from weather forecasting to banking. It even played the first ever computer music. In 1967 Australia launched its

first satellite (seventh nation to do so). In contrast, complete bulk handling of wheat was still not implemented in Australia until the 1970s.

A particular challenge for industrial heritage will be the identification and conservation of high tech industries such as bio-medical and pharmaceutical industries and the industries in the service sector. None of these are the traditional blast furnaces or mills that are typically recognised as being 'industrial'. Similarly, Australia is facing the phasing out of industries like car manufacturing and coal mining which have been important in the past.

Protection and management

The current system for heritage conservation in Australia has three tiers, reflecting the three levels of government in Australia and the specific powers of the States and the Commonwealth as set out in Australia's constitution. The Commonwealth Government has primary responsibility for environmental matters of national and world significance, and the State and Territory governments have primary responsibility for matters of State and Local significance.

In practice the State governments undertake the bulk of heritage protection through legislation in each State, including legislation that allows local government to protect heritage places through listing in their planning schemes. These controls limit the development and use of the place in order to conserve its heritage values. The Commonwealth and the states all have heritage agencies and some local government authorities have staff positions dedicated to administering heritage controls, however no positions are specifically focussed on industrial heritage. Many heritage agencies have experienced reduced funding and resourcing in recent years. Similar pressures have been experienced by community-based, non-government organisations, such as The National Trust of Australia and other smaller volunteer heritage groups.

The most exciting recent development for industrial heritage is that the City of Broken Hill was added to Australia's National Heritage List in January 2015. The listing includes urban areas as well as mining along what is called 'the Line of Lode'. The great richness of the ore gave rise to the world's largest mining company BHP-Billiton (Broken Hill Proprietary-Billiton). The Broken Hill mines were successful for more than 120 years. With mining winding down from the 1970s onwards, Broken Hill struggled economically from the 1990s when the Council focused on tourism based on industrial heritage. The Heritage Advisory Service run since 1986 (primarily by advisor Elizabeth Vines) was successful in building community momentum for protection of Broken Hill's heritage. The joint [2010 ICOMOS/TICCIH Conference](#) which was held at Broken Hill helped focus attention on the full range of heritage, from restored buildings, mining sites to farming sites and beautiful landscapes. Progress on the nomination for listing was hindered by the need to establish an appropriate management regime for continued mining operations within the heritage listed area.



Broken Hill Line of Lode. © Helen Lardner 2010

Another project of interest is the City of Sydney Industrial and Warehouse Buildings Heritage Study, undertaken by City Plan Heritage in association with JCIS Consultants which is currently on public exhibition. The [link](#) provides information on the study which is expected to lead to greater protection of Sydney's industrial heritage.

Promotion and support

The 2011 State of the Environment report noted the general cutting of government funding for heritage and the disproportionate funding allocated between funding for 'Natural Heritage' and 'Historic Heritage'. There is little in the way of incentives for non-Government owners of heritage places to undertake heritage conservation.

There are national 'Heritage Festivals', 'History Weeks' and a struggling 'Archaeology Week' which offer the opportunity to celebrate heritage in a positive way. To date these opportunities have only accidentally included industrial heritage and perhaps TICCIIH could work with other groups to ensure that industrial heritage benefits from these opportunities to promote heritage. Similarly Open House held in Melbourne in July each year showcases many heritage places for public viewing and has industrial heritage as a specific theme. It is very popular and is being expanded to regional cities.

A number of small societies also undertake research into industrial heritage. In particular the [Light Railway Research Society](#) continues to publish well researched historical articles on the broad topic of industrial or light railways.

Research and identification work into Australia's industrial past has been revolutionised by the National Libraries Australian Digital Newspaper project which continues to make newspapers available on-line, in an easily searchable way and cost free. This makes detailed research in newspapers feasible within a significantly reduced timescale thus allowing better understanding of our industrial past.

Apart from this major advance there are experiments with Web based tools to promote industrial heritage. Heritage practitioners use on-line discussion groups sponsored by heritage agencies in NSW and Victoria to discuss matters of professional interest.

Advocacy

There is not a specific program of advocacy for industrial heritage by TICCIH in Australia.

Recent activities

One excellent web based resource was developed by [The Heritage Council of Victoria](#) to present 12 case studies and an issues paper to promote examples which inspire good outcomes for industrial heritage. It has been well received internationally.



Industrial Case Study 9: Paddington Reservoir, by Tonkin Zulaikha Greer. © Brett Boardman

Melbourne's cable tramway network of the 1890s was the second largest in the world and the present electric tramway system is still the largest. The comprehensive [Melbourne Metropolitan Tramway Heritage Study](#) was completed in 2012 by Gary Vines of Biosis Research, Melbourne.

Education and training

Most heritage practitioners have a basic professional training at a degree level (e.g. architecture, archaeology, geography, planning, engineering) and then have developed an interest in heritage and either learned on the job or undertaken extra professional training. The degree to which these courses incorporate specific education in industrial heritage issues is unclear.

Many TICCIH/ICOMOS (Aust) members are taking advantage of overseas conferences and other opportunities to learn about the best management practices for industrial heritage with a view to broadening the portfolio of management techniques used in Australia. In addition, it is pleasing that Australia's heritage management practices continue to be held in high regard among many heritage practitioners overseas.

Publications

In addition to the online publications already mentioned, Dr Alison Wain's 2013 thesis '[Size matters: seeing the values in large technology heritage](#)' examines the ways in which people value and manage large technology heritage.

Also *Architect Victoria*'s 2015 Summer edition, entitled '[Adaptive Reuse](#)' contained a number of articles on the adaptive reuse of industrial heritage places.

Argentina

Mónica Ferrari
TICCIH Argentina

Collaborators: Graciela Moretti, Graciela Viñuales, Jorge Tartarini, Adriana Ortea, José Zingoni, María Elena Méndez, Carolina Rainero, Víctor Ataliva, Jorge Martín, Daniela Moreno and Adriana Collado.

Introduction

TICCIH Argentina was formally organized in 2005 and was integrated with representatives of different regions of Argentina. From 2003 to 2012 it celebrated many scientific meetings in Buenos Aires (2003)¹, (2007)², Mendoza (2008)³, Córdoba (2009)⁴, Chilecito⁵ (2014) and Tucumán (2014)⁶.

The V° Latin American and International Colloquium on Rescue and Preservation of Industrial Heritage in 2007 was celebrated, with 20 countries. During the event, it drafted the “Ibero American declaration of Industrial Heritage” signed by representatives of Argentina, Chile, Uruguay, Brazil, Mexico and Spain. The representatives of TICCIH Argentina were: Graciela Viñuales (2005-2008) and Laura Amarilla (2009-2012) - who died in 2012. During 2014 the regulations of TICCIH Argentina was approved in assembly.

Changing public policies

During January of 2015 the Argentine Legislative Body approved the reform of the Federal Law N° 27.103 which modified the Law N° 12.665 and its modifications. The new rule re-established the responsibility of the National Commission of the Monuments, Sites and Historic Assets and introduced other categories for the protection of cultural heritage. Among them is the industrial heritage category called “historic industrial national interest asset”. This national politic opened an important age in the history of the industrial heritage in Argentina, bringing it a deserved recognition. These ideas were promoted by the architect Jorge Tartarini, member of TICCIH Argentina who is also a member of the National Commission.

In a general framework, in the last decade the CONICET (National Council of Scientific and Technical Research) contributed actively, subsidizing research projects relating to manufacturing and industrial heritage of Argentina, and overall, the cultural and industrial

¹ 1st Conference of Industrial Heritage: Strength and Wealth of the Collective Work. Buenos Aires: CICOP. 1- 2 July 2003.

² V° Latin American and International Colloquium: Rescue and Preservation of Industrial Heritage. 18– 20 September 2007

³ 1st Agro Industrial Heritage and Cultural Landscapes Seminar: Wine, Bread, Sugar and Coffee. Mendoza: Institute of Architecture and Urban Culture. School of Architecture, Planning and Design, University of Mendoza. May 2008.

⁴ II Meeting: International Agro Industrial Heritage. Córdoba: College of Civil Engineers. 4- 7 November 2009.

⁵ International Congress: Heritage, Industry and Environment. Chilecito, La Rioja, 5- 7 November 2014

⁶ IV Seminar: Agro Industrial Heritage International (SIPA). Tucumán: Institute of history and heritage. Faculty of Architecture and Urbanism, National University of Tucumán.

landscapes of the region of Cuyo, sugar fabrics of the region of NOA, as well as port heritage of CABA, Rosario and railway heritage (in different parts of the country).

During January 2015 an agreement was celebrated between the Ministry of Labour, Ministry of Culture, and the National Commission of Museums, Monuments, Sites and Historic Assets in order to identify and enhance heritage work.

The progress with industrial heritage inventories

During 2012 – 2015, the National Commission of Monuments, Sites and Historic Assets has been working on a National Industrial Heritage Plan. It made field works, documentation, inventories and legal protection of assets which have patrimonial values and need legal protection.

Meanwhile, some provinces developed inventories in general that include industrial heritage like the provinces of Buenos Aires and Santa Fe. Another province, Mendoza, is promoting the program: Valorization, Conservation and Preservation of the Transandino railway system.

The Heritage Coordination of the San Juan Municipality is completing fieldwork and documentation of significant heritage in ironwork as urban furniture and statuary located in public spaces and made by European foundries. The aim of this work is to make a declaration to protect them through a municipal ordinance and then by Law.

TICCIH Argentina worked on a database of Industrial Heritage Museums, developed a database, 2003/2014, of agro-industrial heritage teachers and investigators' publications in order to identify which are the industrial categories that need more investigation and who are the people working in each thematic. The sources are based in Industrial Heritage Meetings Publications and other publications like CEDODAL Editions and Aysa & INCUNA Editions.

Recent statutory protection

At the national level, the National Commission declared as National Historic Monument (MHN) and Historic asset of National Interest (BHIN) the following fourteen assets:

- Lifting station of liquid sewage in Wilde, province of Buenos Aires. (MHN)
- Oil well N°1 of Plaza Huincul, province of Neuquén. (MHN)
- The first planes built in Argentina with motor reaction: "Pulqui I y II" (BHIN).
- Hangar for Junkers planes in the Aerodrome of Quilmes, province of Buenos Aires. (MHN)
- The monumental Tower Tank of Mar del Plata, province of Buenos Aires. (MHN)
- The rotating iron bridge of Ensenada, province of Buenos Aires. (MHN)
- Underground historic wagons of line A. Autonomous City of Buenos Aires. (MHN). Protected also by the city law N° 2796 y N° 4886
- The Siderurgic Mixed Society Argentina Building (SOMISA). Autonomous City of Buenos Aires. (MHN).
- Suspension Bridge "Hipólito Irigoyen" in Necochea, province of Buenos Aires. (MHN).
- Train to the Clouds in the province of Salta. (MHN).
- Windmill "Hércules" in San Esteban, province of Córdoba. (BHIN).
- Suspension Bridge "Engineer Candiotti", capital city of Santa Fe, province of Santa Fe. (MHN).
- Railroad and Port Sector of Bahía Blanca in province of Buenos Aires. (MHN).

- Hydroelectric Power Station on the river Suquía, province of Córdoba. (MHN).
- The Trasandino railway system (passenger building, station area, bridges, infrastructures, galleries and tunnels. (MHN)
- Molet Power Station in Córdoba (MHN)

During April 2015 a member of the National Senate presented a project to declare as Historic Monument a Bascule Bridge for railway and road over the “Río Negro”.



Bascule Bridge. © Senator Jaime Linares

The principal projects for conversion or rehabilitation

- Project for the rehabilitation of railway heritage in Santa Fe city
The rehabilitation involved a Franchino Mill as a Cultural Centre, an old locomotive house with “U” shape and the railways spaces which were converted into parks. The Marconetti Mill is still in rehabilitation and will be converted to a municipal school.
- Project for the rehabilitation of port and railway heritage in Rosario city
The rehabilitation began in 2009 and a part of the great project finished during 2014. It involved the whole stores of the port, a sugar refinery, port great spaces converted in parks and a group of grain stores. Other isolated buildings inside the city were also rehabilitated like Rosario North Railway Station.



Stores of the port in Rosario. © Mónica Ferrari

- **Project for the rehabilitation of Industrial Heritage in Tucumán City**
An important thermoelectric power station of 1951 abandoned during many years was rehabilitated by the National University of Tucumán in order to give to students other spaces for learning.
- **Rehabilitation Project: Railways in the metropolitan area of Buenos Aires**
Developed by the National University of San Martín during 2013 in order to give sustainable urban system mobility. Based on different ways of public transport and an opportunity for the recovery and reuse of the railway.
- **Project to declare the cableway of Chilecito as World Heritage**
The Government of La Rioja promotes the candidacy of the cableway of Chilecito. A technical team is developing a research and is preparing preliminary information tending to include this asset on the World Heritage List as a previous instance for the nomination by UNESCO.
- **Project for the rehabilitation in Mendoza and San Juan**
Since 2012, three wine cellars of important architectonic value were restored. Wine Cellar Trapiche (with touristic and social use); Wine Cellar Los Toneles (which touristic and social use), and Wine Cellar Grafiña (converted in a Museum).
- **Sugar fabric Lastenia. Rehabilitation Project to install the Centre for Culture and Memory of the Sugar Industry**
Since 2013, the ISES - CONICET counsels the rehabilitation and developed a project on a research (historical, archaeological and ethnographic) and instances of enhancement and redefinition of its facilities in the framework of programs affecting the local community.

New site museums

CÓRDOBA. Museo Usina Molet

SAN JUAN: Museo Graffigna

SALTA: Museo de la Vid y el Vino

BS. AS. Museo del Automóvil

BS. AS. Museo del Cine

ENTRE RÍOS. Museo de Salto Grande. Binacional

CHUBUT: Museo del Petróleo, Comodoro Rivadavia.

ENTRE RÍOS. Molino Forclaz

BS. AS. Museo de la Cultura del trabajo y la identidad obrera

BS. AS. Links de museos ferroviarios de Argentina

Training programmes at university or other levels

Post graduate Seminar

2013 – 2015. Every year CICOP, in Buenos Aires, teaches seminars about Industrial Heritage inside the Master Programme which is opened to the public.

Student Voluntary Programme

2014. National University of Tucumán made a program named “Students Volunteer”, developed “The working village tell us its history” referred to small villages belonging to Railroad workshop of Tafí Viejo.

Video and brochure

2012. The Sarmiento Thermoelectric Power Station was in ruins when the University decided to recover it. Ferrari M.; Bruna L. did a brochure and a video, in collaboration with N. Mozzi, about: *The Power Station at the Centenary*.

Doctoral and Master's Theses

MORETTI, G. Master Thesis: *Industry, Housing and Society in the villages of cement*. Master in History of Architecture and Urbanism Latin American. Faculty of Architecture and Urbanism, UNT, lecture 2012.

MARTINEZ, M. Doctoral Thesis: *The villages of the desert*. Urban planning Doctoral Program. UPC (finish in process).

CARACCILOLO, R. Doctoral Thesis: *Land of rails: individual strategies for the collective construction of the territory in the Central Region of Argentina*. UPC (theses in process)

RAINERO, C. *Identity and transformations: Marks in the Landscape Production of Rosario and its metropolitan area*. UPC (theses in process)

Investigation Projects

MORETTI, L. (Dir). Project: *Industrial Landscape and Modern Architecture*. University of Mendoza, 2012/ 2013

GIRINI, G. (Dir). Project: *The grapevine and wind Itinerary*. University of Mendoza, 2013/2013

SANTIBAÑEZ, G. (Dir). Project: *The material dimension of architectural heritage. Assessment techniques and materials in the Andes region* (Cuyo and NOA), includes studies of industrial heritage. Congreso University, 2012/ 2013

MICALE, A. (Dir). Project: *The ways of the grape in Ibero American. The company of Jesus as a spreader winemaking and its arrival to Mendoza: a cultural itinerary proposal*. Congreso University, 2012/2013

MORETTI, G. (Dir). Project: *Industrial Heritage in Mendoza: Planning, Architecture and Musealization*. Congreso University, 2013/ 2015

RAINIERO, C. Project: *Marks in the landscape of agricultural production: ex Corridor - Córdoba Rosario Central Railway, Management of assets and local development*. University of Rosario, 2012/ 2013

CAMPI, D. (Dir). Project: *"Actors and strategies. Employers and workers in Tucumán, 1850-1955,* (The project involves a program of rehabilitation and recovery of ancient productive spaces of the Lastenia former sugar factory). ISES - CONICET, 2009/ 2014

MORETTI, G. (Dir). Project: *Agroindustrial Network of the Company of Jesus in Latin America*. Participating universities: Congress University; Faculty of Architecture, Urbanism and Design, UNC; Faculty of Architecture and Design, UM; Faculty of Architecture and Urbanism, UNT, 2014/ 2015

Networks in Industrial Heritage

2013-2015: "Grape Network". Mendoza University (Cord), Participating Universities: National University of Tucumán, National University of San Juan, University of Sevilla, University of Chile

1st Student Forum of Industrial Heritage

2014. Celebrated in Tucumán during IV SIPA 2-5 September. (Cord: Santibañez, G; Logusso, J.)

Blog about cultural Action for the Conservation and Management of Industrial Heritage Food.

"Marca Liebig" is a blog managed by a member of TICCIH Adriana Ortea

Museum of the Sugar script

2013. ISES- CONICET. Museum of the sugar industry, museographic and museologic script. This research institution performs the monitoring and counselling about the exhibition and the heritage preservation.

Actions Research Laboratory, Conservation and Digital Processing Documentary Funds

Since 2013 the laboratory has been working on Document Scanning Industrial heritage and also began to draw a database that constitutes the Library of Sugar.

Significant publications since 2012

FERRARI, M. (2012). Paisaje y patrimonio en la línea ferroviaria Jujuy – La Quiaca. Una propuesta de reutilización para el desarrollo local. En [II Seminario de Paisajes Culturales UdelaR/ UPC](#). Montevideo, Uruguay

FERRARI, M. (2012). La construcción del paisaje cultural en la línea del ferrocarril Jujuy – La Quiaca. En XIV Jornadas Internacionales de Patrimonio Industrial y Paisajes Culturales. Memorias del Desarrollo y II Conferencia sobre Patrimonio y Desarrollo Regional (CONPADRE'2012). Gijón, España

FERRARI, M. (2014). El ferrocarril de Jujuy a Bolivia. El proceso de poblamiento en las regiones de Puna, Quebrada de Humahuaca y Valles de la provincia de Jujuy. En Revista Labor & Engenho v.8, n.1, 2014

FERRARI, M. (2013). Viaducto El Saladillo en Patrimonio Argentino. Industrias, Estaciones, Puentes y Mercados. Buenos Aires: Diario de Arquitectura de Clarín

GIRINI, L. (2014). La revolución vitivinícola en Mendoza. 1885-1910. Las transformaciones en el territorio, el paisaje y la arquitectura. Mendoza: Idearium, Fondo Provincial de la Cultura

MORENO, D.; ROIG, J. (Coord.) (2014). Actas del IV Seminario Internacional de Patrimonio Agroindustrial. Organizado por el Instituto de Historia y Patrimonio. FAU – UNT. San Miguel de Tucumán, 2-5 de septiembre

ORTEA, A. (2012). Memorias Obreras de La Liebig. Patrimonio Industrial Alimentario de la producción y el trabajo de la carne. Editorial Académica Española

RAINERO, C.; LOMONACO, H.; DE GREGORIO, R.; BRARDA, A.; VERA CANDIOTTI, M.B.; ESCUDERO, S. (2015). *Paisaje de la producción del área metropolitana de Rosario*. Rosario: Las Bandurrias. (En prensa)

TARTARINI, J. (2012). Patrimonio Ferroviario Bonaerense. La Plata: Instituto Cultural de la Provincia de Buenos Aires: Dirección General de Patrimonio

TARTARINI, J. (2012). El Palacio de las Aguas Corrientes. De Gran Depósito a Monumento Histórico Nacional. Buenos Aires: Agua y Saneamientos Argentinos. AySA.

TARTARINI, J. (2013). El patrimonio industrial. Los espacios de la memoria del trabajo. En Patrimonio Argentino. Industrias, Estaciones, Puentes y Mercados. Tomo IX. Buenos Aires: ARQ Clarín/CICOP

TARTARINI, J. (2014). Sobre Patrimonio Industrial y otras cuestiones. Buenos Aires: Ed. Lazos de Agua. AySA

VIÑUALES, G. (2012). Qué hacer con nuestro patrimonio industrial. Experiencias, reflexiones y propuestas. En VI Coloquio Iberoamericano del TICCIH. San Pablo, Brasil

VIÑUALES, G. (2013). El bloque de cemento. Una tecnología de exportación. Labor & Engenho, v.7, n.2, Campinas

VIÑUALES, G. (2014) Puerto Belgrano, the military port of Argentina. TICCIH Bulletin, No. 63, 1st quarter

ZINGONI, J. (2012). Arquitectura Ferroportuaria de Bahía Blanca. 1880-1930. Bahía Blanca: Editorial Universidad Nacional del Sur

Austria

Guenter Dinhobl, National Representative

This report is prepared in coordination with the members of TICCIH Austria and with inputs of the Austrian Federal Monuments Office (Österreichisches Bundesdenkmalamt, ÖBDA) and the Vienna University of Technology, Institute of History of Art, Building Archaeology and Restoration

Introduction

The national group TICCIH Austria is small, with five members. They work at universities, administration and technical companies. Three of the members of TICCIH Austria are also members of ICOMOS.

Character of industrial heritage

The industrial heritage of Austria has a broad range of monuments and includes one technical UNESCO World Heritage site, the [Semmering railway](#), but also several industrial properties in every other UNESCO World Heritage site of Austria.

While the Austrian Federal Monuments Office is working with an operational database 'protection of monuments', a general inventory of industrial heritage in Austria - which builds up on international inventory-standards like ICOMOS or docomomo - is still lacking. For some districts of Austria, inventories were done during the last decade (e.g. for Lower Austria by Gerhard Stadler in 2006). Furthermore, the website of [listed monuments](#) in Austria at Wikipedia includes also industrial heritage sites. This is a helpful tool to get a quick insight (to be chosen by district), but there is no filter for industrial heritage sites, nor does it fulfil international inventory standards.

Although a slight increase of listed monuments can be observed, still the highest share of the properties of industrial heritage in Austria are from the sectors of transport – both railway and road – followed by hydraulic engineering, food industry, and mining and metallurgy. But there are also fine listed monuments in the energy and supply sectors, paper production or aerial cableways. On the other hand, there are still industrial heritage objects which are not listed yet. Also some listed industrial heritage objects have been de-listed during the last years – which mostly result in their destruction.

The monuments register of Austria contains in 2013 more than 37.000 listed properties and approximately 6% of them are classified as industrial heritage. This classified industrial heritage distributes as follows:

Table: Austria - classified industrial heritage		
	number of entries* in database 'protection of monuments' (ÖBDA)	
	2012	2015
energy, supply	152	154
hydraulic engineering, navigation	308	310
machines	3	3
mining, metallurgy	163	171
production - building materials, glass	44	47
production - food industry	176	183
production - general	74	80
production - metal	140	145
production - paper, printing	10	10
production - textile, leather	60	61
trade	43	49
traffic - aerial cableway	13	15
traffic - railway	510	541
traffic - road	554	561
traffic - tram & underground railway	49	49
classified Industrial Heritage - Overall	2.299	2.379
source: Österreichisches Bundesdenkmalamt (ÖBDA), July 2012, April 2015		
*: at one database entry there might be several classified monuments summarised		

Protection and management

The protection of industrial heritage is included in the general 'monuments protection law' (Denkmalschutzgesetz).

The responsibility for the protection of industrial heritage is situated at the Austrian Federal Monuments Office (Österreichisches Bundesdenkmalamt, ÖBDA). Up to 2012 one department was dedicated to industrial heritage. A re-organisation of the ÖBDA in that year result in a separation of responsibility for industrial heritage into the regional monuments offices (one for each county in Austria) and one centralized department dedicated to 'special subjects' which also includes technical monuments. In the long run it has to be observed if such a separation might result in a different handling of industrial heritage which depends on the practise of the regional monuments offices.

In 2014 the ÖBDA has published general guidelines on the preservation of monuments - [Standards der Baudenkmalpflege](#); unfortunately it does not address the specific peculiarities of monument protection of industrial heritage. Therefore there are still no common rules or best-practise issues for industrial heritage management in Austria.

Promotion and support

The promotion of industrial heritage in Austria is still under-represented; but on the other hand it has also to be stated that industrial heritage sites participate at the Austrian monuments day every autumn. One reason for the under-representation is because industrial sites have to compete with the huge quantity of Austria's imperial and clerical heritage buildings (e.g. in the city of Salzburg) which is more attractive for tourism

advertisement. That is why it is still difficult to raise public awareness of Industrial heritage in Austria because of this 'common understanding' of heritage in Austria – the three C's of cultural heritage: castles, churches and city buildings.

The members of TICCIH Austria founded in 2013 the association [TICCIH Austria – Österreichischer Denkmalrat für das kulturelle Erbe von Industrie und Technik](#) to promote industrial heritage issues of Austria within the worldwide context. In 2015 a folder with information on the "Seeklause Hallstätter See in Steeg" was published (information on this site see article 'The Seeklause at Hallstätter See, Austria' by Peter STRASSER, [TICCIH Bulletin](#) No.67, 2015).

Also in 2013 the [Österreichische Gesellschaft der Mühlenfreunde - HERKUNFT ZUKUNFT](#) (Austrian society of mills friends) was founded. In late 2014, the 1st symposium on 'Old mills – New paths' was carried out in Vienna.

A selection of recent activities

Success: local initiative and partly public funding to preserve hammer mill "Roob" from 1770 which is situated in Ligist (Styria; see www.kulturhammer.at, in german).

Open:

- Discussion of abatement of the monuments protection of road bridge across the Danube near the city of Krems / Lower Austria
- Future of the listed monument "Seeklause Hallstätter See in Steeg" (weir system), see article 'The Seeklause at Hallstätter See, Austria' by Peter STRASSER, TICCIH bulletin No.67, 2015



Seeklause Hallstätter See in Steeg.

Losses:

- Abatement of the monuments protection of rail/road-bridge across the Danube in the city of Linz (see *National Report 2012* and 'TICCIH Austria: Demolish? The Linz Railway Bridge' in: *TICCIH Bulletin* No.62, 2013, p.6), removal planned for 2016, afterwards building of a new, broader bridge.



Combined rail/road-bridge across the Danube in the city of Linz.

- Demolition of former office building of Brown-Boveri-company in Vienna, built in 1890/1 (with adoptions and enlargements in recent times). It is considered 'the oldest company buildings for electrical equipment within Austria' (Wehdorn/Georgeacopol).



Demolition of former office building of Brown-Boveri-company in Vienna.

- Demolition of Wolfdietrich-Berghaus in Hallein (Salzburg) from 1598 which was the main building of salt mining at the Dürrenberg.



Wolfdietrich-Berghaus in Hallein before demolition.

Education and training

Vienna University of Technology, Institute of History of Art, Building Archaeology and Restoration, hold seminars, trainings (planning-tutorials and field research) and lectures on monument preservation including industrial heritage issues) within the [studies in architecture](#).

At Graz University of Technology and at the University of Innsbruck there are also courses given in the field of monument preservation as part of the studies in architecture.

The Danube University Krems offers at the 'Zentrum für baukulturelles Erbe' both a master and an expert course in 'renovation and revitalisation' which includes also general concepts in renovation and revitalisation of industrial heritage buildings.

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- Peter STRASSER: The Seeklause at Hallstätter See, Austria; TICCIH Bulletin No.67, 2015, p.10
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Belgium

In Belgium, heritage is a competence shared between the three federal entities: Flanders, Wallonia and Brussels. In view of the 16th TICCIEH Congress, ETWIE (Expertisecentrum voor Technisch, Wetenschappelijk en Industrieel Erfgoed) and PIWB (Patrimoine Industriel Wallonie-Bruxelles) joined forces within the Belgian section, with both providing a written contribution for the National Report. The presidency of TICCIEH Belgium is being handed over to PIWB for three years.

FLANDERS

Robin Debo (ETWIE), with contributions by Filip Delarbre (Mijnmuseum), Joeri Januarius (ETWIE), Adriaan Linters (VVIA), Peter Scholliers (TICCIEH Belgium), Patrick Viaene (TICCIEH), Ann Van Nieuwenhuysse (MIAT), Tjil Vereenoghe (ETWIE)

Organisations, education and policy

The oldest volunteer organisation for industrial heritage in Flanders is the Vlaamse Vereniging voor Industriële Archeologie (VVIA, www.vvia.be). Founded in 1978, the association continues its activities to protect and preserve industrial heritage. [SIWE](#), the regional platform for industrial and scientific heritage, unfortunately ceased to exist in 2013. In 2012 the new organisation [ETWIE](#) was recognised by the Flemish government as the Centre of Expertise for Technical, Scientific and Industrial Heritage, focusing on the movable and intangible aspects of this heritage.

Museums

Between 2013 and 2015 a considerable number of museums of industrial heritage were renewed and reopened. The Jenevermuseum in Hasselt underwent a major facelift, now offering interactive ways to learn about the origin, the development, the place and the perception of the product jenever. In Kortrijk, the former flax museum moved to a new location and was re-launched as Texture, whereas in Izegem the collections of the National Shoe Museum and the National Brush Museum are merged into a new museum in the Eperon d'Or, a former shoe factory which is being restored. In 2013, the Museum over Industrie, Arbeid en Textiel (MIAT) in Ghent, one of the most important museums in the field of industrial heritage, won the Flemish Museum Prize, a yearly award for a museum that excels at presenting and conserving its collection while attracting and involving new audiences in an innovative way.

Education

Formal courses on industrial heritage remain rather sparse. Every year, VVIA organises the course 'Introduction to industrial archaeology'. Two universities offer courses about industrial heritage. At the Free University of Brussels, Peter Scholliers - national representative for TICCIEH in Belgium and chairman of ETWIE - teaches the course 'Industrial archaeology and industrial heritage'. At the University of Antwerp, Patrick Viaene - TICCIEH board member and former chairman of SIWE - teaches the Master course Monuments and Landscape Architecture. As one of the pioneers of industrial archaeology in Flanders, he dedicates a significant amount of his lectures to industrial heritage.

Policy

In 2015 a new Immovable Heritage Decree came into effect in Flanders, which directly and indirectly impacts the industrial heritage. One significant change to the policy of immovable

heritage is the increased stake and responsibility of cities and municipalities. In 2013 the renewed Maritime Heritage decree was approved. The revision expands the instruments for financial support and legal repercussions for the protection of maritime heritage, and affixes the new Maritime Heritage Inventory. In the field of movable heritage, the Topstukkendecreet (Masterpieces Decree) was renewed in 2014.

Protection

In recent years, several industrial heritage sites were recognised as a protected monument. In Antwerp, the interest of industrial archaeologists turned to the Petroleum-Zuid site, one of the oldest petroleum harbours in Europe. In 2014 a temporary resolution for protection of five buildings and installations on the site was signed. In Ghent, the power plant of Langerbrugge, built in 1911, finally became a protected monument. Unfortunately a lot of damage had already been done to the installations on the site since its closure in 2001. The brewery Vuylsteke in Kortrijk, with the nearly complete brew house dating back to the end of the 19th century, was protected. It will be renovated and integrated into the school. Further industrial remains which were (provisionally) protected in the past years include the malt house and brewery Verhaeghe in Anzegem, the water mill in Wanzele, a wine storehouse in the Antwerp harbour, the power station in Izegem, and the former rope works Van den Berghe in Berlare. Harbour crane Nijvelkraan DE 296 in Antwerp, was also protected.



View of the Petroleum Zuid site in Antwerp. © Tjil Vereenoghe, ETWIE

The latest additions to the 'List of Masterpieces' include several aircraft: two SV-4s constructed by the Antwerp plane builders Stampe & Vertongen (www.stampe.be), a rare tipsy trainer 00-EOT and the only remaining Fairchild C-119G used for transport missions in Belgian Congo. In 2011 a narrow-gauge locomotive from 1935 was added, which was built to transport visitors at the 1935 Brussels International Exposition.

Restoration and re-use

In the past few years several protected industrial sites were restored or re-used. This overview is only a selection of some interesting projects.

In Limburg, several mining sites have been redeveloped. The Be-Mine project for the adaptive reuse of the protected mining site of Beringen included brushing up the exhibition in the Mijnmuseum Beringen. The project aims at combining urban functions with cultural tourism. This project is similar to the protected mining site Winterslag near Genk, which was redeveloped into the successful C-Mine. Here, the objective was to create space for culture, creativity and communication. The site quickly attracted a movie theatre, food service industries, creative industries, a college of arts, the cultural centre of the city and the C-Mine Expedition attraction. In 2013 it won the Flemish Monuments Prize. In 2012, Manifesta organised the European Biennial of Contemporary Art in the protected mining site of Waterschei, attracting over 100.000 visitors. Now, the Waterschei site is being transformed into Thorpark, a new hotspot for technology, energy and innovation. In 2015, at the Zolder mining site, an industrial experience route was opened in the hoist room and a centre of adult education will move to the site.



The restored compressor room in the hoist building at the Zolder mining site opened in April 2015. © Luc Corthouts, ETWIE

Also in Limburg, the restoration project of the steam syrup factory Wijnants-Groenendaels in Borgloon – the winner of the television programme ‘Monument’s Battle’ in 2007 (see TICCIH National Report 2009) – is still ongoing. The old distillery complex in Wilderen (near the city of Sint-Truiden), including the completely preserved technical installation, was restored by the private owner at his own expense. The stables are now housing a modern brewery (www.brouwerijwilderens.be). This restoration project was a laureate for the Flemish Monuments Prize in 2012. In Leuven, Brewery De Hoorn was restored. Nowadays it functions as an event hall (amidst six large copper wort boilers). However across from the De Hoorn, the Brewery De Dijle was demolished in 2012, despite actions from SIWE and the Historical Society of Leuven. In 2015 also the restoration of the Mouterij Van Roye in

Halle was finished. The regional museum and archive service are now housed in the building, which also offers an experience trail on the malt house.

In Ghent, an interesting case of re-use is the site of the former textile factory De Porre, which was transformed in a new public park, integrating some of the remains of the former factory. The old walls now function as the garden walls and part of the walkways, prominently featuring pictures and stories of former employees. The unique STAL steam turbine has been restored and protected by a glass pavilion, and now functions as an eye-catcher. Another example in Ghent is the site of the gas factory, which will become a residential district, offering spaces for trade, recreation, services and offices. The site includes a gas factory, two gasholders and a large mill. Nearby at the ACEC site, a similar plan for redevelopment is already underway. The new area, called Dok Noord, will remain dotted with industrial archaeological remnants, including the factory facade.



The former textile factory De Porre in Ghent was transformed in a public park. © Tijn Vereenoghe, ETWIE

Other interesting examples of restoration and reuse include the power plant of Zwevegem (now Transfo Zwevegem), which is being redeveloped into an event location, park and recreational area, the industrial site Van Coillie in Lichtervelde, and the Slijperij Lieckens in Nijlen, where a new diamond experience centre was opened in 2014.

In general the heritage of ports and harbours has attracted quite some attention. In the north of Antwerp, the harbour area, which features a lot of maritime and industrial heritage, is undergoing an important renewal, thanks to private and public investments. The city museum MAS and the new migration museum Red Star Line, which opened its doors in 2013, play an important role in this evolution. Initiatives to preserve the Charlesville, the last remaining 'Congo Boat', however, failed. In May 2013 the ship was towed towards Lithuania to be scrapped. During the trip, the ship sank under circumstances which are still unclear.

Throughout Flanders, several factory chimneys were torn down. The alarming rate at which chimneys seem to be disappearing has prompted the VVIA to dedicate extra efforts to raise

awareness for industrial chimneys, as part of the European Year of Industrial Heritage 2015.

Publications and research

Several journals dedicated to industrial heritage in Flanders have been abolished in recent years, including the SIWE-Magazine and MIAT's Tijdschrift voor Industriële Cultuur (TIC). In the future MIAT will publish scientific articles in its new digital knowledge centre (www.miat.gent.be/nl/miat-factory). The journal 'Erfgoed van Industrie en Techniek' is currently the only journal dedicated to the study, preservation and management of industrial and technical heritage in the Low Countries. The 'Industrial archaeology and industrial heritage bibliography', previously managed by MIAT, has recently been integrated in the knowledge platform on ETWIE's website. ETWIE and MIAT now collaborate.

WALLONIA

Jean-Louis Delaet (president of PIWB) with contributions from Jacques Crul and Claude Depauw (directors of PIWB)

The cradle of the Industrial Revolution on the European continent after England, especially in the provinces of Hainaut and Liège, Wallonia's rightful place was finally acknowledged by the inclusion of its four major mining sites on UNESCO's World Heritage List in 2012, a few years after the inclusion of the Canal du Centre's four hydraulic lifts. These results can mainly be attributed to the action developed by the Patrimoine Industriel Wallonie-Bruxelles (PIWB) association. Building on this momentum, the association addressed a "Memorandum to safeguard the vestiges of 20th century heavy industry", on 12 June 2014, to the negotiators within the Walloon Government. In response, a passage in the regional policy statement leads us to hope that there will be greater interest in the threatened vestiges of this industrial adventure; on page 77, there is mention of the new government's intention to provide for "greater integration of the reallocation of listed industrial heritage in heritage policies".

There are plenty of derelict industrial sites in Wallonia: there are still some thousand or so potentially polluted sites according to the Société Publique d'Aide à la Qualité de l'Environnement (SPAQuE), a company specialising in the redevelopment of industrial wasteland and dumps.

The regulatory and institutional framework

The recognition and protection of industrial heritage require a reasoned approach that takes into account recent developments in regulations. The CWATUP (Code Wallon de l'Aménagement du Territoire, de l'Urbanisme et du Patrimoine) of 15 May 1984, amended several times, and its various orders, relate both to the cleaning up and renovation of derelict industrial sites, and the protection and restoration of heritage. New elements were added to Book 3 of the CWATUP relating to heritage, in order to adapt it to developments in the context and the need to make management more efficient. One of the measures relates to the evolution of the conditions regarding the listing of heritage assets.

The list of exceptional heritage in Wallonia was reviewed in 2013. Established for the first time in 1993 and revised every three years by the regional government on the basis of a proposal made by the Commission Royale des Monuments, Sites et Fouilles, this list now includes 194 monuments (which are eligible for a 95% subsidy rate) and sites. Among the

newly listed assets are the Bois du Cazier in Marcinelle (Hainaut) and Blegny-Mine (Liège), both of which were included on the World Heritage List in 2012.

Museums and tourist attractions

However, besides protecting industrial heritage, it is necessary to determine the methods for managing this type of heritage, because the approach adopted can't always be as rigorous as the one applied to more traditional monuments since the circumstances are sometimes very different. Within this context, the regulatory framework has been completed in the past few years by the implementing of two major decrees: one that falls under the scope of the Wallonia-Brussels Federation, whose political responsibilities affect entities such as education and culture (Decree of 17 July 2002, amended by the Decree of 3 May 2012 in terms of the recognition and subsidisation of museums and other related institutions); the other one falls under the scope of the Walloon Region whose remit includes territorial development (Decree of 1 April 2004 relating to tourist attractions).

Public operators

On a more functional level, the Walloon Region, which has been playing a major role for several years as regards operators of cultural and tourist sites, has entrusted the management of its own heritage to two organisations: the [Institut du Patrimoine Wallon](#) (IPW) and the [Commissariat Général au Tourisme](#) (CGT). We should point out that many of these sites, especially those that fall under the scope of industrial heritage, even though they belong to the public domain, are privately managed in the form of a not-for-profit association (asbl), which provides greater flexibility than direct management by the Region or the Wallonia-Brussels Federation as regards museums.

Associations

Patrimoine Industriel Wallonie-Bruxelles is a not-for-profit association set up in 1984, whose aim is to federate, coordinate and promote industrial heritage. The association has been subsidised by the Wallonia-Brussels Federation since the beginning. PIWB has been receiving additional support from the Walloon Region since 2013, through a new partnership with IPW.

In terms of communications tools, PIWB has a website where users can consult a calendar of events, a library, publications, links, and make online searches. Some pages are in Dutch and English. PIWB also issues a newsletter five or six times a year, with a particular focus on threatened heritage sites. In addition, the association publishes an annual 80-page review called "Des Usines et des Hommes", with popular science articles on themes such as: "Application for the inclusion of the major mining sites on UNESCO's World Heritage List" in 2009, "Industrial heritage and housing" in 2010, "Walloon steel. Heritage for the future?" in 2011. "High voltage in danger? Electricity in the 20th century" in 2013, and "What part of 20th century heavy industry should we keep?" in 2014.

Founded in 1998, the not-for-profit association Musées et Société en Wallonie (MSW) aims to set up a communications network for museums, encourage exchanges with other professional associations and participate in discussions on employment in the socio-cultural sector. In 2009, a specific network was created which includes 14 Walloon museums with a focus on industrial, scientific and technical heritage (Patrimoine industriel, scientifique et technique - PISTe) www.msw.be.

Sites included on the World Heritage List

Wallonia's major mining sites

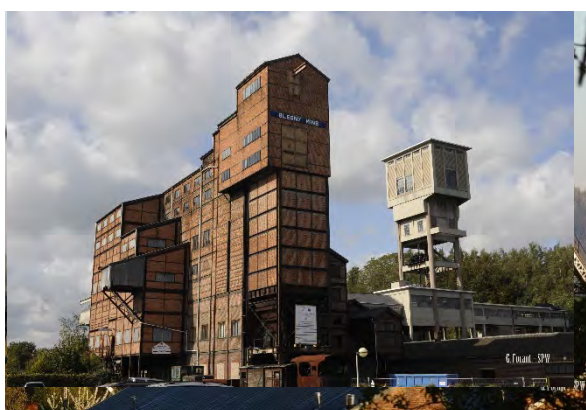
Wallonia's major mining sites have been included on UNESCO's World Heritage List since 2012. These sites are: Grand-Hornu, near Mons, for its architecture; Bois-du-Luc, close to La Louvière, for the social life of its mining community; Bois du Cazier, close to Charleroi, for the memory of the disaster of 8 August 1956 (all three in Hainaut) and Blegny-Mine (Liège) for its technical know-how. Contrary to the mining area in the Nord-Pas de Calais region, this listing covers four specific sites, not an evolving cultural landscape. They are complementary and form a coherent whole.



Grand-Hornu © Guy Focant – SPW



Bois-du-Luc © Ecomusée du Bois-du-Luc



Bois du Cazier © Guy Focant – SPW

Authenticity and integrity are the two criteria which have led to the recognition of their exceptional universal value, because these four sites are important places of cultural convergence owing to the contribution of Wallonia's engineers and workers to the history of the world, as well as the contribution of foreign workers to the development of Belgian mines. They are symbols of the Industrial Revolution that marked the whole of Europe in the 19th and 20th centuries.

Once included on the World Heritage List, it is vital to ensure the asset's continuity and to ensure it continues to respect the criteria which led to its inclusion by UNESCO. A regularly updated rolling management plan has therefore been established. It is monitored by four authorities: a Steering Committee, which makes the decisions; a Management Committee, which prepares and implements these decisions; a Scientific Advisory Committee; all three are supervised by the Comité Wallon pour le Patrimoine Mondial (CWAPAM) responsible for the overall policy and budget for all the UNESCO sites in the Walloon Region.

The management plan, common to the four mining sites, has seven key development areas which are divided into actions: management of built heritage, citizen participation, education and training, the promotion of culture and tourism, scientific research,

international cooperation, marketing and communications. Recognition by UNESCO has undeniably had a positive impact. For the moment, it is the dynamics in terms of society, culture and tourism that have benefited the most from the inclusion on this list owing, in particular, to an increase in the number of visits to the sites by a wider range of visitors.

Th Bois du Cazier has joined the European Network of Coal Mining Museums created in Zabrze (Poland) on 10 May 2012 which includes, besides Kopalnia Guido (P), the Centro Italiano della Cultura del Carbone in Carbonia (I), the Deutsches Bergbau Museum in Bochum (D), the National Coal Mining Museum of England in Wakefield (UK) and the Centre Historique Minier de Lewarde (F).

The four hydraulic lifts on the Canal du Centre

Each of the four lifts, which are more than a hundred years old, help to compensate for the difference in level of approximately 17 metres thanks to a single source of energy: water. These hydraulic lifts on the Canal du Centre are the only ones in the world, built at this time, to still be in their original working order. However, three of the lifts have been closed since 28 March 2014 by the Direction des Voies Hydrauliques, following safety concerns, among other things, in relation to the workers, who are too few and not sufficiently trained. Negotiations are well underway and could lead to a global investment and reorganisation plan with regard to the management of the lifts, which is currently the responsibility of the not-for-profit association "Voies d'eau du Hainaut", www.voiesdeau.hainaut.be.

20th century heavy industry heritage

Saving the remains of the pioneers of 19th century industry has often been down to chance, local action or civic initiatives. However, as far as 20th century heavy industry heritage is concerned, is it possible to define certain selection criteria so that the most representative elements are given priority in terms of protection, restoration and reallocation? The situation today is urgent owing to Europe's accelerated deindustrialisation and the disappearance of whole sections of economic sectors. This was the subject of a symposium organised by PIWB, in partnership with IPW on 6 June 2014 at the Moulins de Beez, the old industrial mills close to Namur which were restored in 1998 and turned into an archive centre, public space and offices.

The steel industry has attracted our attention because we are indeed witness to the end of the hot phase in Wallonia: in Charleroi, since 2008, and undoubtedly in Liège, in 2014. There were some 50 blast furnaces in Wallonia in the 1960s! Now there are only four: two in Liège (HF6 in Seraing which is marked for demolition, HFB in Ougrée which has been mothballed for the moment as it may be brought into action again), HF2 in Clabecq in Walloon Brabant, which was dismantled, and HF4 in Charleroi (Hainaut), which is under threat. Consequently, a movement was recently initiated by the local population regarding HF4, which was taken up by the communal authorities. Will we be able to preserve one or two blast furnaces in Wallonia as a testimony to this industrial adventure? Will we have to adopt heavy investment programmes as was the case in the Ruhr, with the help of the European Structural Funds, at a time when these are dwindling for Belgium? In this case, it would perhaps be better to focus on elaborating innovative projects to reappropriate this heritage.



Blast furnace Nr 4 in Charleroi. © Gilles Durvaux - Postindustriel

This is why PIWB took the initiative to ask the heritage department, during the symposium organised by the Province of Liège on “Sites industriels de la Grande Région entre mémoire et innovation” on 2 April 2015, which gave a positive response, to meet the interlocutors from the two former steel-making areas of Liège and Charleroi in the coming weeks to establish a set of procedures in line with its “Memorandum to safeguard the vestiges of 20th century heavy industry”.

Protected, restored or demolished industrial heritage

Other mining sites

The Hasard coal mine, in Cheratte (Liège), is known for its neo-mediaeval style buildings (1907). The coal mine was protected in 1982 when the whole site was listed and tower no. 1 (Malakoff type) was listed as a monument along with its adjoining machine rooms. It became clear that only public acquisition would allow this testimony to the industrial past to be safeguarded and promoted. This acquisition was finally made in 2013 thanks to its recognition as a redevelopment site; SPI, the Province of Liège’s development agency, was able to proceed with its expropriation with a view to cleaning it up, which will consist of securing the site and demolishing unlisted buildings with the exception of the lamp room.

The Triage-Lavoir de Péronnes (Hainaut), inaugurated in 1954, was financed by the Marshall Plan subsidies. Closed in 1969, this coal washing facility was taken over several times before IPW began a procedure in 2001 to save the building. The exterior has radically changed because the concrete on the facade, among other things, has been repaired and repainted with the support of the European Structural Funds for a total of EUR 7 M. The Walloon Government’s policy decision of 2009 should finally come to fruition. The aim is to redevelop the vast surface area of the washing facility (14 000 m2) into a central archaeological deposit for the products of research accumulated over the years. Since

2014, the works to restore the site have continued with the construction of a part-buried building in the area surrounding the facility for the Régie Fédérale des Bâtiments, which will be home to the reserves of the federal science institutions and museums by 2016.

The Tour Saint-Albert in Péronnes (Hainaut), a few hundred metres away from the washing facility, is a remarkable and unfortunately unprotected element of Walloon heritage! It is threatened with demolition in 2015! Also built in 1954, it is a variant of the Art Deco style and in particular the streamline moderne style. At the top of the tower is an extraction machine that is still complete and intact, which was partly built at the neighbouring Ateliers du Thiriau. A committee comprised of local citizens was formed to oppose the tower's demolition by the owner, the pipeline company Fluxys, which manages natural gas transport infrastructure in Belgium.

New infrastructures inaugurated or planned

The Keramis Centre de la Céramique in La Louvière (Hainaut) preserves, studies and promotes the tangible and intangible testimonies to the ceramics produced by the company Boch from 1841 to 2009. In charge of purchasing the site upon its closure for a symbolic euro on behalf of the Wallonia-Brussels Federation, IPW restored the three bottle ovens built from fire bricks between 1865 and 1880, which were used to fire the pottery. The operation was carried out within the framework of European co-funding and the restoration of the whole site in order to house the Federation's ceramic collections. The centre was opened to the public in May 2015: www.keramis.be.

The future Centre des Métiers de la Pierre in Soignies (Hainaut) will breathe new life into the industrial buildings of the Grande Carrière Wincqz in Soignies. These disused buildings were listed in 1992 and added to the list of threatened monuments in 2001. Ten years later, IPW carried out a feasibility study with a view to establishing a stonecraft centre on this site. At the same time, a project committee comprised of the various stakeholders in the sector was put together to create this reference centre in Wallonia. The stonecraft centre should open in 2016.

These two new infrastructures demonstrate the dynamism of a public operator like IPW. However, we should also mention the initiatives of local inhabitants and the private sector. The first one concerns the reallocation of an early 20th century water wheel (1902) in Clavier (Liège) by the Collectif Condroz Energies Citoyennes. Its aim is to transform three old mills into hydroelectric power plants with the help of the European Restor Hydro programme. The second one concerns the transformation of a water tower in Marchin (Liège) into housing by a private owner. It is an exceptional building dating from 1920, built entirely from reinforced concrete, that was abandoned 30 years ago. It is the only surviving building of the Godin paperworks, which were entirely demolished by SPAQuE in 2010.



Water tower of the Godin paperworks in Marchin. © Baudouin Stalport

A revealing failure

The chimney at the Cuivre & Zinc site in Chênée (Liège) was pulled down in 2014 despite its initial inscription on the Walloon Heritage conservation list! We are currently witnessing the indiscriminate destruction of factory chimneys, which are tumbling one after the other, under the often debatable pretext of a spontaneous threat of collapse. It was following a request from a neighbourhood committee in January 2013, in favour of protecting this brick chimney, that PIWB compiled a file concerning the interest of preserving it. Unfortunately, the heritage department, followed by the heritage minister, gave a negative response regarding its preservation. SPAQuE pulled it down several days later.

Research, exhibitions and publications

Obviously, we can't provide an exhaustive list of the research, exhibitions and publications concerning industrial and social heritage. PIWB's newsletters, available on its website (www.patrimoineindustriel.be), and the quarterly *La Lettre du Patrimoine* published by IPW, are vital sources. There is also a platform for historians and those who are passionate about heritage, and industrial heritage in particular: www.minedhistoires.org. Hence, the following list is entirely subjective.

Concerning mining sites, CRUL J., DELAET J-L, DEVILIER G., et al, *Les sites miniers majeurs de Wallonie, patrimoine mondial*, *Carnets du Patrimoine*, no. 96, 68p, is a must. To celebrate the tenth anniversary of its opening to the public, the Bois du Cazier held an exhibition, *At heart of progress. Coal, iron and steam since 1750*. Industrial imagery from the collection of John P. Eckblad, from 5 April to 3 June 2012. These engravings were exhibited for the first time at the University of North Carolina's Ackland Art Museum in

Chapel Hill. Catalogue in English and French. The Blegny Mining Museum recently held the exhibition *Des mineurs et des savants*, from 14 March to 17 May 2015. Put together by the University of Liège's Centre d'Histoire des Sciences et des Techniques, it shows us the miners who have helped science and even our world view to evolve (a catalogue is being drafted). Still on the subject of mines, after the publication of his booklet on the *Misère au Borinage* by Henri Stock and the social films in 2011, the Cinematek (Royal Belgian Film Archive) brought out *Les Mines. 14 films sur les charbonnages belges*, in 2012.

Within the framework of the cross-border INTERREG IV (2009-2013) programme, the *Itinéraire de la Culture Industrielle (ICI)* project invites us to discover the heritage common to Hainaut and the Nord-Pas de Calais. The French partners were: Mission Bassin Minier, the Communauté d'Agglomération Hénin-Carvin, the Musée d'Histoire Naturelle de Lille; and the Belgian partners: the Parc d'Aventure Scientifique (PASS) in Frameries, the Ecomusée de Bois-du-Luc and the Bois du Cazier. ICI has created many tools including a guidebook. This publication suggests five themed routes which take you across the border to discover the industrial experience, and includes 160 accounts. *Itinéraire de Culture industrielle, Carnet d'exploration, Bois-du-Luc*, 2011, 247p.

BRUSSELS

Guido Vanderhulst, vice president of PIWB, president of BruxellesFabriques

In 1990, the 7th TICCIH Congress was held in Brussels and organised by TICCIH Belgium, the federation of Flemish, Walloon and Brussels associations for industrial heritage. Twenty-five years later, this contribution aims to measure the evolution in the preservation of this heritage in the Brussels-Capital Region.

There have been significant developments. Considerable advances have been made. Belgium was federalised and a Brussels region was created. It acquired the means to take care of itself in all respects, in particular, in terms of land-use planning, the management of infrastructures such as the port, roads, railway stations, managing the environment and heritage as well. A Commission Royale des Monuments et Sites for Brussels was established.



The Royal Depot restored. © Guido Vanderhulst

Of course, we must mention the Tour & Taxis site, a series of imposing buildings built between 1904 and 1907. Ten years of actions and tensions were required to save the site and reallocate it. A group was formed bringing together various associations coordinated by La Fonderie. After a press campaign, the involvement of neighbouring populations, an appeal to the Council of State against the regional government, involvement of the World Monument Watch representative, it finally won against the ridiculous Musiccity project which wanted to deface the site and adapt it to a purely autarchic and commercial project. It was actually the new owners who concluded that this commercial project was unprofitable. They understood that placing a stake on heritage was the only future value. The property developer funded a trilingual brochure and a permanent exhibition of paintings, among other things. For nine years, the Commission Royal des Monuments et Sites had its offices here.

Today, the site works very well, with offices in the old rooms of the Royal Depot, exhibitions and events in the old sheds and in the cellars. The most emblematic buildings were renovated with a genuine respect for their value. Sadly, none of the old railway lines were kept, even as a reminder of their original purpose. Outside, festivals such as Couleurs Café or circuses welcome a large influx of people under the big top. A nine-hectare park,

undoubtedly the biggest one to be developed for decades in the Brussels Region, is currently being planted. It is the work of the French landscape gardener Desvigne.

The site is currently filling up with new buildings; if you are a property developer, you try to make the most of your outlay, even if this means sometimes making unfortunate choices. These new buildings break with the historical layout determined by the rail sidings: this site was a marshalling yard for customs purposes, and the formation of trains. Public institutions have moved in here, such as the environment office or the Ministry of the Flemish Community, which will group all its services together here.

Another building project led to considerable discussions: the future of the former Poêleries belonging to Jean Baptiste GODIN (1817-1888) in Laeken, opposite the Parc Royal, on the banks of Willebroeck canal. This site was exceptional, and Godin's only construction besides the Guise site in France, which has been saved thanks to support from all the French and European authorities. Without telling the whole story of Godin's development in Brussels, the latter reconverted and developed the oldest industrial site in the region into an indienne.

Despite the criticism facing the construction of a huge car-based shopping centre, which belongs to a new era, in favour of saving this major exceptional piece of social and industrial heritage; despite widespread mobilisation; and despite the proposal to list the site, the government gave in to the developer. Only part of the indienne, the place the workers called the 'cathedral', was saved and will be restored, but nothing of Godin's original construction will be kept. We will have to explain the history of the listed Familistère, without the factory which was the reason for the building!

Another interesting piece of heritage was razed to the ground for the sake of a tower building, the biggest in the Brussels Region. They were the old Delhaize offices, warehouses and factories, on Quai des Armateurs. Adolphe Delhaize (1840-1899) had a complex built that was the finest example of an industrial and commercial site, built on the banks of the canal in the new port area, and connected to the railway line which came right into the factory, just below the bow-windowed offices, allowing the directors to check on the arrival of the workers, the freight cars coming in and the boats being unloaded. It was also the customs function of Tour & Taxis that explains this choice: Delhaize imported coffee, cacao, colonial foodstuffs and a lot of wine, which were all taxed. The building's architecture was remarkable, embellished with sgraffito decorations. The listing procedure was broken off owing to the pressure from property developers.

An old mill, the Meunerie Moulart dating from 1903, is in the process of being renovated and adapted. Built on the banks of the Charleroi canal, like several other flour mills, it benefited from arrivals of Walloon coal for the steam engine, and grain to be milled into flour. This flour mill is the only one still in existence, apart from the Ceres mill which is still in use in the outport. A historical study was carried out revealing that these bosses and patriarchs had a vision of industry while favouring their family. Thanks to European funding, the building will be able to provide space for start-ups as well as a space devoted to highlighting the history of the Cureghem neighbourhood, which was significantly marked by the canal, industries and social life.

The Atlas brewery (1913), an old brewery that dominates the landscape in Anderlecht, reflects the conversion of breweries that brewed local beer only produced in the Brussels Region – lambic and gueuze with a long, slow fermentation process – to directly available pils type beers. The two eras of brewing stand alongside each other. Unfortunately, a property developer has been authorised to knock down the old part, only keeping the brewery's 'cascading' tower. It will be turned into lofts!

A new association was created in 2008: BruxellesFabriques-BrusselFabriek. Its purpose is to study and highlight the region's social, port and industrial heritage, to collect the social memory of the 'last' witnesses and to raise awareness among the public to ensure the next generation looks after this heritage.

One of its current projects is to restore old machines from the Wielemens-Ceuppens brewery built between 1894 and 1905. Europa Nostra awarded BruxellesFabriques first prize in June 2013, in the "Studies prior to restoration" category. The project is progressing and the schedule to start the work is currently being negotiated. The study won an award because it associates the restoration of masterpieces of industrial heritage of at least European value with a programme to retrain people, and with a campaign to raise awareness among the general public with regard to these machines and their history, the 'soft' restoration system, the brewery and the neighbourhood. A major sponsor is joining this programme, thus covering almost the entire 'restoration' budget. The restoration works should take place in 2015.

Among the actions to highlight and raise awareness about the project, the association mobilised several heritage stakeholders, concerning the listing of the Avenue du Port, and the revival of jobs for pavers. This avenue was created by the port in 1907 as a real industrial boulevard, used to serve the port companies. One thousand five hundred metres long and 18 metres wide, it is composed of more than one and a half million porphyry paving stones, a true gem resulting from magmatic rocks from the region of Quenast in Hainaut. It is undoubtedly one of the last paved industrial boulevards in Europe. These paving stones were exported throughout Europe: even Red Square in Moscow and the main square in Nantes are paved with these stones laid by Walloons. The request to have it listed was refused by the government, and an appeal to the Council of State is in progress.

The abovementioned cases mean that Brussels' social and industrial heritage remain topical, despite the pressure of property developers and the choice of too many authorities to take risks on the future of a European capital region, by wiping away many jewels of our heritage.

Ronaldo André Rodrigues Da Silva

Introduction

The early activities of the Brazilian Committee for Conservation of the Industrial Heritage (TICCIH-Brazil) were developed between 2004 and 2009, during which the first activities of appreciation of industrial heritage took place. The recognition and preservation of sites of the industrial context as ways of cultural expression were also emerging.

During this period, participation in local, Latin American and international meetings allowed a scientific and academic background to develop. This environment led to a greater visibility of the Brazilian industrial heritage and guaranteed a concern, even if it was in its initial phase, of public and private agencies to recover and preserve it.

From 2009, with the possibility of holding an international meeting in Brazil (the Latin American Colloquium), a new stage of the actions and activities related to industrial heritage was envisioned. However, due to political and economic issues and without an adequate institutional support and sponsorship, the activities were forced to focus only in the participation of international meetings and academic research activities.

In 2012, as a reestablishment of the proposed activities, the Latin American Conference was held in the Escola de Belas Artes (School of Fine Arts) of São Paulo. The participation of a large number of researchers and the presentation of a total of 125 works from different countries confirmed the importance of the endeavor to establish relevant debates. These efforts were also essential to develop proposals of actions that seek the appreciation of the Brazilian and Latin American industrial and cultural heritage.

During the Latin American Colloquium of 2012, another event was held in parallel: the Second National Meeting on Industrial Heritage. On this occasion, the TICCIH-Brazil Committee was elected, whose representatives are: Ronaldo André Rodrigues - president; Ademir - vice-president; Vanessa Bello Gayego Figueiredo and Marco Zambello - general secretaries; Cristina Meneguello and Silvana Rubino - academic committee; Bernardo Bielowski Brazil - institutional committee.

This fact reflected in the later participation in the International Meeting of TICCIH in Taipei, in 2012, and the Latin American Conference in Mexico, 2013. And, once again, confirmed itself with the great amount of papers presented at the International Meeting in Lille in 2015.

In addition to participating in these meetings, the involvement of researchers linked to Brazilian industrial heritage in other several meetings for the dissemination of research related to the industrial heritage confirms the development of a Brazilian body of research in the area. This expansion is also seen in the analysis of the numerous post-graduate, masters and doctorate researches which were presented in the last years. The theme of these researches was focused on industrial elements and their relationships with the environment and its importance to the communities and local and Brazilian societies.

Thus, it has become a global concern to present certain continuity in the actions and activities related to heritage. Our intention is to promote, in 2016, the IV National Meeting on Industrial Heritage as a preparatory element for an effective participation in the Latin American Colloquium, to be held in Cuba.

The Brazilian industrial heritage 2013/2015

The concern regarding the preservation of Brazil's industrial heritage can be observed in the last five years as a growing concern by public bodies for the inclusion of sites of cultural heritage in local, regional and national lists. Since then, there has been a widening regarding the perception of sites of the industrial heritage as manifestations of culture, both material and immaterial. There were also institutional activities such as:

List of Goods – IPHAN

State	City	Denomination	Situation
2012			
RJ	Quissamã	Conde de Araruama's Railway Station Complex (Building)	Dismissed
RJ	Rio de Janeiro	Boarding platforms of Barão de Mauá and Praia Formosa Stations and the ateliers of Praia Formosa Station (Architectural Complex)	Provisory
RJ	Rio de Janeiro	Building of the Old Docks Dom Pedro II (Edification)	Emergency
RJ	Rio de Janeiro	Eurico Gaspar Dutra Bridge, Burle Marx Road, Guaratiba (Equipment and urban infra-structure)	Dismissed
RJ	Rio de Janeiro	Santos Dumont Airport (Building)	Dismissed
RJ	Teresópolis	Governador Portela Square (Urban Complex)	Dismissed
SC	Florianópolis	São José I Whaling (Moving and integrated goods)	Instruction
SC		Remains of Viamão path, between the states of Rio Grande do Sul and Santa Catarina (Rural Complex)	Instruction
SP	Jundiaí	Building and Land of the Ex-factory Japy in Vila Arens (Building)	Dismissed
SP	São Paulo	Cine Belas Artes Cinema (Building)	Dismissed
MA	São Luís	Historical Site Vila Vinhais Velho (Urban Complex)	Instruction
2013			
CE	Capistrano	Capistrano Railway Station (Building)	Dismissed
RJ	Japeri	Japeri's Former Railway Station (Building)	Instruction
RS	Santa Maria	Vila Belga (Urban Complex)	Dismissed
2014			
AL	Mata Grande	Public Jail (Building)	Instruction
GO	Cidade Ocidental	Saia Velha's Hydroelectric Power Plant (Equipment and urban infra-structure)	Dismissed
MG	Ribeirão Vermelho	Architectural and Landscape Complex of the Ribeirão Vermelho Railway (Architectural Complex)	Instruction
RJ	Magé	Headquarters of the Magepe-Mirim Farm (Building)	Dismissed
RJ	Rio de Janeiro	DOI-CODI's Building (Edification)	Instruction
RJ	Tanguá	Factory buildings of the bankrupt Brazilian Antibiotics Company - CIBRAN (Edification)	Instruction
RR	Boa Vista	Architectural Complex of São Marcos Farm (Rural Complex)	Instruction
SC	Florianópolis	Old Airfield - 'Field of Aviation' (Equipment and urban infra-structure)	Dismissed
SP	Dois Córregos	Dois Córregos Railway Station (Building)	Instruction
SP	Jundiaí	RFFSA's Collection in Paulista Company of Railroads's Railway Museum (Collections and archives)	Instruction
2015			

PE	Recife	Courtyard of Cinco Pontas Railway (Architectural Complex)	Instruction
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As recent experiences, there are some cases that constitute the appreciation of heritage by the requalification and reuse of projects. The preservation of these sites, however, depends on maintenance of the memories and stories of the Brazilian industrial past. It also depends on the commitment of social agents to the preservation of the industrial cultural heritage, whether these agents are companies or government, people or groups of interest.

As an example complementary to those recognized by the federal agency of protection to the cultural heritage, there is the industrial complex of Tanguá (CIBRAN). Its search for recognition is a joint work of the community and municipal government. These groups formed a strong movement aiming at the formalization of the process to the protection to the patrimonial collection of the Brazilian Antibiotics Company - CIBRAN, which inherited the sugar industrial complex of Tanguá. The factory, located in the eastern region of the Rio de Janeiro state, emerged as an important alcohol production center in the 1920s. It also played an important social and economic role for Brazil and the international community between 1970s and 1990s due to its production of inputs for the manufacture of antibiotics.



Industrial Complex of Tanguá, State of Rio de Janeiro.(c) Rodrigo Rangel, 2015

A second example relates to the adaptation of the old São Luís Factory, located in São Pantaleão Street, in the district of Madre Deus, São Luís, Maranhão. With the financial aid from the federal government through “PAC2 Cidades Históricas”, the reform and restoration of the architectural complex with its sites of the industrial building that compose the apogee of Maranhão textile industry was made possible. This set of buildings is located in heritage site, in São Luís Historical Center. Currently, it comprises the Cultural Foundation with areas of artistic expression, technical resources and custody of the equipment of the events organized throughout Maranhão’s cultural calendar. Its future project is to install, after the

recovery of the complex, the headquarters of the municipal parliament. The project has to proposition to start the reconstruction on September 2015 and to end it in the middle 2017.

Unlike the previous examples, this complex is recognized as an intangible industrial heritage by the federal agency of cultural heritage (IPHAN), who considered the productive process of the Canastra cheese as intangible heritage of Brazil. Its making process has its own characteristics and is transmitted between generations in farming families. The Canastra cheese features are known as more cured texture, sharp flavor and a specific aroma. Its production takes place on farms in the Serra da Canastra region which is characterized by mountains, the nascent of São Francisco river and other natural beauties. With national recognition, the name "canasta" can only be used for cheese produced in the region.

Nevertheless, the slowness and difficulty in defining the situation of the Brazilian railroad heritage should be noted. The different interpretations as to the competence between different state agencies and, consequently, their jurisdiction are two factors that contribute to the difficulty of this process of recognition of rights and duties on their complex of elements.

One of the cases of national interest is pending since 2013. At this time, there was a proposal by IPHAN to prepare a Revitalization Project of the Railway Heritage which would result in the creation of the National Railway Museum (Museu Ferroviário Nacional – MFN). The idea was to restore and re-use the Leopoldina Railway Station, in Rio de Janeiro, to house a significant portion of the Brazilian railway system assets. The station was inaugurated in 1926 and known as the Barão de Mauá Station. The complex is now disabled for more than 10 years. Therefore, the project is expected to determine an appreciation of its space as well as the recovery and consolidation of the preservation of the national memory of railroads.

Another case of non-recognition and disregard for the Brazilian industrial heritage, and the subsequent appropriation of real estate speculation, refers to the case of Sergipe Industrial Company in Aracaju, Sergipe. Even after the academic and social mobilization, which developed petitions and documents that demanded the establishment of the factory as a heritage site and presented these documents to the Sergipe Council of Culture, the demolition of the factory could not be prevented. The only building left was the Industrial Chapel, which will be preserved in the central area of space where a shopping center stands.



Area of the Sergipe Industrial Company (with the Industrial Chapel in the center-left). © Ronaldo André Rodrigues, 2014

The factory was an important industrial center of the Northeast region of Brazil, especially due to the implementation of the textile industry in the beginning of the twentieth century. It represents the memory and history of the city as well as the valuation of local identity. It is also believed that the factory was a framework for the struggles of the working class and forming pioneer entrepreneurs in the region. The complex was composed of manufacturing areas, leisure areas and workers' housing. The only remaining element is located outside of the walls of the demolished complex, which comprises a couple of houses of the Workers' Village and the aforementioned chapel.

One of the cases that demonstrate the plurality of the Brazilian industrial patrimony, including both geography and regionally, is found in Joinville, Santa Catarina, where we have the closure of the 'Bunge Alimentos' activities. Its structure dates back over a 100 years and owns one of the most easily identified buildings of the city, the Joinville Mill. However, unlike previous cases, there is a social and governmental mobilization aiming to transform the cultural area into a space where activities related to arts, vocational training and museums would be developed. The proposal aims at the valorization of an envelope area in which is the Public Market. In this sense it has been sought to expedite the process of tipping and to set a valuation project in the area, which has not been consolidated since the end of 2013.

As well as in the previous cases presented, some others took place with the social mobilization, and they've ended up being converted into positive, but provisory, situations that led to the reflection and appreciation of industrial heritage. This refers to the steam-driven São Luiz Factory, installed in 1869 in the city of Itu, São Paulo, a pioneer in the spinning and weaving industry in the state.

It represents one of the most important examples of the first industrialization phase of the state and Brazil. In 2014 the demolition activities of a grand part of the factory began, with no concern for the fallen areas or the preservation of the complex. However, from the social mobilization there was a banning of the process and a reassurance of the importance of the factory for the social and economic history of the city and the region.

Recently, two important examples of the appreciation of industrial heritage have occurred in Brazil.

After the social mobilization in Recife, in June 2014, residents and public agencies of the State of Pernambuco promoted an intense process of protection and enhancement of the so called "Pátio Ferroviário das Cinco das Pontas" (Cinco Pontas Railway Courtyard) at the José Estelita Pier. The area comprises a rail complex located in an important valuation and real estate speculation region, which also has great importance for the formation and development of the city. The Railway Complex is the second oldest port-rail assembly in Brazil and consists of a group of buildings that consider the operational area an element of the train memory, whose representation is done through the preservation of the 'Estrada de Ferro Recife - San Francisco' (Railroad of Recife – São Francisco), the second oldest in the country and the first in northeastern Brazil.



View of Cinco Pontas Railway Courtyard (Recife, Pernambuco). © Edmar Melo/JC Imagem, 2015

With the recognition of the area as cultural heritage, in February 2015 the federal agency, IPHAN, presented the technical studies that determined its inscription on the Brazilian Cultural Heritage Railway list. This fact is important not only for the preservation of the memory and history of Pernambuco and Brazil, but also to help identify its importance and landscape values, historical and cultural. The importance of social mobilization, the movement "Occupy Estelita" and the Federal Public Ministry and the Ministry of Culture should be emphasized. Thus, there is the appreciation of the Brazilian railway and industrial heritage and the possibility of their redevelopment and reuse as an important identity space from inclusion projects and visibility of the space for the population and enhancing the social memory.

It is expected from this initiative that social groups and public and private institutions start to enhance the Brazilian industrial heritage and define solutions that lead to the coordination of city-wide planning projects that take into account not only the furniture speculation, but also the memory and the history of social spaces.

One last case in May 2015 refers to the Barão de Mauá Bridge, which was recognized as the first binational cultural heritage among the Mercosur countries, Brazil and Uruguay. It was built between 1927 and 1930 on the river Jaguarão and linked the towns of Jaguarão (RS), Brazil, and Rio Branco, Uruguay. The bridge constitutes a major axis of communication between countries and its importance is due to the approach and exchange, from political and economic objectives to social and cultural ties, between Brazil and Uruguay.



The Barão de Mauá Bridge - Jaguarão (RS), Brazil, and Rio Branco, Uruguay, 2013.

Conclusion

It is noticeable that, in the second decade of the twenty-first century, the domain of the industrial heritage has been appreciated, recognizing its importance for the memory and the history of Brazilian society. The multiplicity of representations has also allowed verification of the diversity of possibilities that the industrial heritage includes; as well as the identification of elements whose reference is the formation of Brazilian society.

The preservation of the sites has occurred in several Brazilian regions and many heritage appreciation initiatives occur from the mobilization of civil society, through groups and local associations, as well as state agencies, private companies and institutions. However, despite the efforts, the number of cultural industrial heritage sites that are protected is still low, considering all of the existing possibilities in the country.

An important contribution to the Brazilian and world heritage, held with the support of TICCIH-Brazil, was the book *Paranapiacaba, a heritage for humanity*, coordinated by Prof. Dra. Vanessa Gayego Bello Figueiredo and Prof. Ronaldo André Rodrigues, both members of the Committee. The Village of Paranapiacaba, State of Sao Paulo, is an important example of preservation of the railway heritage, whose company town and railway complex make up a unique example of industrial landscape that is composed not only of an architectural structure, but also natural heritage located in the Serra do Mar and composed of an area of environmental preservation, and historical and technical railroad heritage. It is noteworthy that in 2014 the Village of Paranapiacaba was included in UNESCO's list to become world heritage because of the [English Village and Railway Systems](#) in the Serra do Mar Mountain Range.



View of Paranapiacaba Company Town. © Ronaldo André Rodrigues, 2012

In this sense, the Brazilian Committee for Conservation of the Industrial Heritage has sought to develop its actions by recognizing the field with the support from different institutions, such as the Brazilian official organs of preservation of cultural heritage, universities, research groups and others. The effective participation of members of the National Committee on academic events - national and international - has provided the institutionalization of the field and the formation of a network of collaborators for the enhancement of industrial heritage.

For the coming years, we intend to institutionalize the process of network and strengthen and encourage the participation in all Brazilian regions, as well as intensify the Committee's activities along with the official organs of Brazilian cultural heritage - in its local, regional and national levels. Thus, the Committee's role has sought, as principles, to identify and register, protect, preserve and conserve, educate and train individuals who allow the appreciation of national industrial heritage.

Chile

Jaime Migone-Rettig

President TICCIH-Chile, Corporación Nacional Chilena para la Conservación del Patrimonio Industrial. TICCIH-Chile

TICCIH-Chile is a Cultural Development Non-Governmental Organization working for the conservation of Chile's industrial heritage. TICCIH-Chile has been involved in several activities aimed at sensitizing and disseminating the values that are the driving force of its members. Following is a summary of activities performed up to January 2015.

The Elevators of Valparaíso: full restoration of the transport system.

During the second half of the nineteenth century, the port of Valparaíso became the main centre for storage and redistribution of products in the South Pacific. Through it, the city experienced an economic splendour shortly noted in the urban development of this. The richness of the port industry, the flowering of new trade and the arrival of foreigners who were attracted to the investment opportunity offered by the port, completely changed the provincial level that characterized the first town of Valparaíso, becoming a cosmopolitan city, an icon of urban modernity in the Republic of Chile.

The history of the elevators goes back to the development of transport after the Industrial Revolution. While the idea of lifting objects using a rope attached to a pulley system existed long before (as shown in the engraving of the fifteenth century), it was in the nineteenth century, once the steel wire braiding was invented it went on to become a means of transportation that did not depend on human or animal traction.

NUM.	Elevator	Since
1	Concepción	1 de diciembre de 1883
2	Cordillera	16 de septiembre de 1886
3	Artillería	29 de diciembre de 1892
4	Hospital San Juan de Dios	octubre de 1898
5	Bellavista	16 de julio de 1899
6	Panteón	24 de junio de 1901
7	El Peral	7 de diciembre de 1901
8	Ferrovial	18 de mayo de 1902
9	Reina Victoria	4 de marzo de 1903
10	Esmeralda	1905
11	Mariposas	14 de mayo de 1906
12	Florida	1906 a febrero de 1907
13	Arrayán	12 de marzo de 1907
14	Lecheros	15 de febrero de 1908
15	La Cruz	5 de marzo de 1908
16	Barón	17 de abril de 1909
17	Larraín	31 de octubre de 1909

18	Santo Domingo	16 de noviembre de 1910
19	Espíritu Santo	24 de diciembre de 1912
20	Monjas	1912
21	Placeres	1913
22	Villaseca	18 de octubre de 1913
23	San Agustín	1913
24	Merced	20 de febrero de 1914
25	Ramaditas	21 de noviembre de 1914
26	Polanco	8 de junio de 1916
27	Delicias	1921
28	Las Cañas	1925
29	Van Buren	1929
30	Perdices	19 de septiembre de 1932

From the second half of the twentieth century, the economic prosperity that had been forged in Valparaíso during the nineteenth and early twentieth centuries began to decay, producing a long stagnation in the development of port elevators.

On the one hand, the construction of the Panama Canal in 1914 made Valparaíso lose primacy in trade in the South Pacific. In turn, the beginning of World War II that year resulted in a diminution of trade between Europe and America. And finally, the global crisis of 1929 that triggered from the United States, affected Chile and its main port very strongly, due to economic dependency abroad had finally generated, the splendour lived by the locals started to disappear as decreased investment capital in place.

The group of Elevators of Valparaíso was included in the 1996 List of Endangered Heritage Sites of the World Monument's Fund. In addition, a multidisciplinary research, funded thanks to a grant, was the basis for submitting the candidacy of Valparaíso for inclusion in the [World Heritage list](#). The book "*Ascensores de Valparaíso, valor de un patrimonio olvidado*" was published. Now we are working on the restoration of Elevator Las Monjas and Elevator Villaseca. Last year, 2014, we won a competition at the Ministry of Public Works of Chile. The restoration will be comprehensive and aims to recover the transport system.



Ascensor Monjas



Ascensor Villaseca

Pisagua Saltpetre Port, Restoration of two historic monuments. Theatre and Clock Tower

The port of Pisagua is located over 2,000 kilometres north of Santiago de Chile and currently has less than 300 inhabitants. In its highest splendour, at the beginning of the 20th

century, it had some 2,000 inhabitants and was one of the major saltpetre shipping ports throughout the world.

There are five buildings with the top protection condition under the current law in Chile, the Theatre and the Clock Tower among them. In the enhancement program of this site are the projects of restoration and refurbishment of both buildings, an initiative led by the Ministry of Public Works of Chile.

In 2013, the Ministry of Public Works launched a public contest to carry out both projects of enhancement, won by our institution. Both projects are finished and in a phase prior to their completion. Both monuments were built at the end of the 19th and beginning of the 20th centuries and were part of the saltpetre port's infrastructure. The Theatre is a 1,650 square meter building with room for some 300 people and also has a market and the seat of the Town Hall as a part of its facilities.

The clock tower also dates from these times and has a clock machinery that besides telling the time of the day includes a carillon that marked the quarters, the halves and every hour with a two bell system, for the port. The clock is French and was made in approximately 1870 by the Collin Wagner Company, a Jean Wagner successor company, with its headquarters in Paris.

Both projects restore the buildings and refurbish their operations to be handed over to the development of the local community, as part of enhancement.

We will continue to focus our interest on the industrial heritage and we want to invite everybody to join in a multidisciplinary approach to the tasks of identification, documentation, and rescue in which we all have something to contribute.



Pisagua Port

Santa Laura Saltpeter Facility, Atacama Desert, Enhancement of a World Heritage site. Interpretation Center and the Iodine Museum.

The former Santa Laura and Humberstone Saltpetre facilities are part of UNESCO's World Heritage list since 2005. Both sites are also highly protected by the Council of Chilean Monuments, and are part of the Endangered World Heritage. These sites are run by the [Corporación Museo del Salitre](#) (Saltpeter Museum Corporation).

The enhancement program of this site comprises the restoration and refurbishment Project of the Old Management House of the Santa Laura Saltpetre, an initiative led by our office for over a year and currently on its last stage of execution. The Management House is an approximately 1,600 m sq building, with an additional 2,100 m sq patio area, built at the beginning of the 20th century as office headquarters and housing for the English manager of the facility.

Its current condition is precarious and it was abandoned from 1961 until 2000, when the Saltpetre Museum Corporation took over its protection and a complex and slow process of enhancement started. In 2012, the Ministry of Public Works launched a public contest to carry out the enhancement of the Management House that was awarded to our institution and is on its final development phase nowadays.

The project consists in the structural consolidation and restoration of this building, in order to maintain its current condition, as an example of industrial heritage restoration. This House will also harbour the Iodine Museum, a saltpetre by-product and quite unheard of within the productive process for so many years on the site.



Santa Laura Saltpetre

We will continue to focus our interest on the industrial heritage and we want to invite everybody to join in a multidisciplinary approach to the tasks of identification, documentation, and rescue in which we all have something to contribute.

China

Liu Boying

Professor of Tsinghua University, School of Architecture, Chairman of the Industrial Heritage Committee under Cultural Relic Academy China

Organizations

Recently, there are three organizations in the field of industrial heritage research in China. The first one, Industrial Architecture Heritage Committee under the leadership of Architectural Society of China (ASC) was established in November 2010. The second, Industrial Heritage Department under the leadership of Historic and Cultural City Committee of China was established in March 2013. The main representatives are the architects and urban planners in these two organizations.



The Industrial Heritage Committee under Cultural Relic Academy China (IHC of CRAC) is the third, and its founding ceremony was held in May 29 2014. IHC is a NGO organization, which consists of academic scholars in the fields of architecture history and technical history, urban planning, architecture design and environment science. Some factory owners and investors were invited to join the committee. IHC has 12 consultants, 74 members, and 21 directors.

Today, there are more than 10 TICCIIH members in China according to TICCIIH Membership Directory. We hope to make IHC represent TICCIIH in the People's Republic of China, and to establish the TICCIIH National Committee.

Activities

More than 20 Chinese Mainland scholars participated in the 2012 TICCIIH Congress in Taipei. From 2010 to 2014, we have held annual academic conference every November in different cities, Beijing, Chongqing, Harbin and Xian. The impact of the committee is increasing, and the size of the conference has reached 400 people in 2014. The 2015 conference will be held in November in Guangzhou.



Liu Boying, the representative of IHC, took part in the 2014 International Forum for Asian Route of Industrial Heritage, which was organized by Hsiao-Wei held in Taipei. The IHC has invited Hsiao-Wei to join the annual conference three times.

IHC cooperated with a media company and organized the Urban Regeneration Forum in Xian in April 2015. John Thompson (general urban planner of Battersea Power Station regeneration project, London) was invited to give a speech.

Museums

There are currently 3,866 museums in China; among them, more than 300 are industrial thematic museums (some of them belong to industrial enterprises. 232 museums are of traditional technology themes, such as ceramic (<http://www.jdztcms.com/>), salt (<http://www.zgshm.cn/>), silk (<http://www.chinasilkmuseum.com/>) and paper (<http://www.ntzzbwg.com/>, etc. 68 museums are of modern industrial themes or belong to industry enterprises, such as chemistry (<http://chemmuseum.net/>), glass (<http://www.qhdblbg.com/>), railway (<http://www.china-rail.org/>), coal (<http://www.coalmus.org.cn/>) and automobile (<http://www.automuseum.org.cn/>), communication (<http://museum.chinatelecom.com.cn/>) etc. In addition, most historical museums, science and technology museums, and comprehensive museums have industrial relic collections (<http://www.chnmuseum.cn/>), (<http://www.shanghaimuseum.net/>, <http://www.sxhm.com/>, <http://www.cstm.org.cn/>).

On January 4, 2012, the Digital Museum of Baidu Baike was formally put into use. It is the result of cooperation between Baidu Baike and traditional museums. The Digital Museum is a universal platform synthetically making use of rich media, QR code, and virtual reality technologies, providing a full range of display of collections. By using computers and mobile phones, people can get access to information on 115 Chinese Museum collections. Every collection can be presented in 360 degrees, with professional verbal explanation.

There are 72 National Mine Parks with a variety of themes, including iron, coal, nonferrous metals, oil, and building material ore. There are abundant mineral geological relics, historical production sites, mining products, social life scenes, and mining development literatures. (<http://www.hnbsgjksgy.com/>, <http://www.byhyspark.cn/> <http://bbs.scjyjt.com/>)

Achievements

Research

IHC issued “*Designation Listing Selection Guide for Chinese Industrial Heritage*” in May, 2014, as the standard for research. The Committee undertakes research projects, helps government to issue relevant policies, and provides consultation for urban planning, architecture design, and creative industry operation.

World Cultural Heritage

Dujiangyan irrigation system is the only Chinese industrial heritage listed in the World Cultural Heritage in 2000. The Grand Canal, the longest canal and artificial river in the world, with many industrial heritage projects, was added in the World Heritage Site List in 2014.

Huangshi Mining and Metallurgy Industrial Heritage (located in Hubei province), entered the Chinese World Cultural Heritage Preparatory Backup List in 2012. It includes four parts: Tonglushan Ancient Copper Mine Site, Daye Iron Mine Pit, Hanyeping Coal-Iron Industrial Site, and Huaxin Cement Plant Site.



Tonglushan Ancient Copper Mine started early from Yin dynasty (1000 BC.) and has lasted 3,000 years till today. A large number of ancient ruins were discovered here.



Daye Iron Mine Pit has become the largest Asian mining pit after more than 1,780 years of mining.



In 1890, Zhang Zhidong founded Daye Iron Mine and Daye Iron Work in Huangshi. They were the main bodies of Hanyeping Company which was the largest steel company in Asia at the time, and was called "the cradle of the iron and steel industry in China". The retained iron blast furnace base was built in 1921.



Huaxin Cement Plant was established in 1907 by royal assent, formerly named Hubei Daye Cement Plant and one of three cement plants in modern China. In April 1950, the plant was moved from Wuhan to Huangshi, and was combined with Daye Cement Plant, changed to the name of Huaxin Cement Plant. In December 1950, the second wet kiln production line was put into operation, and the plant reached the largest in scale in Far East. Huaxin Cement Plant Site includes many constructions and equipment, such as workshop, kiln, mill and packing machine. The existing three sets of large cement wet process rotary kilns; No. 1 and No. 2 kiln were imported from the United States in 1947, which are currently the only cement wet process rotary kiln equipment in the world. In comparison, No. 3 kiln was domestic, put into operation in 1977, and represented the advanced level of China's cement industry at the time. The above four industrial heritage sites are concentrated intensively in the region of 17 square kilometers. With the distinct characteristics of age-old, diverse category, spatial enrichment, and integrity protection, the four industrial heritage sites are the historical witnesses of city development and the technology level in different periods.



Patrick Martin (President of TICCIH) in Huangshi

Chinese National Key Cultural Relics Protection Units

In 2013, the State Council promulgated 1,943 new National Key Cultural Relics Protection Units as the seventh installment. Among them, 170 Industrial Heritages (including industrial heritage before the Industrial Revolution) were included. Now, the total number of industrial heritage sites in the National Key Cultural Relics Protection Unit reached 329, of which 245 are ancient industrial heritage, and 84 are modern industrial heritage.



Changchun First Automobile Works



Old Millfun 1933 in Shanghai



Shanghai Yangshupu Water Plant

Statutory regulations

- 1) A number of cities have investigated, sorted and promulgated the industrial heritage protection lists, and drawn up the protection plan for industrial heritage, such as Nanjing, Guangzhou, Wuhan, Hangzhou, etc.
- 2) A number of traditional industrial bases investigated and promulgated the industrial heritage protection lists, designated industrial heritage protection zones, such as Beijing Shougang, and Beijing Coking Plant, etc.
- 3) Some cities, like Wuxi and Daqing, issued local regulations.

Conservation and reuse projects

Under the Urban Renaissance and New Urbanization policies, more than 130 urban regeneration projects were implemented across China in the past five years. For example, in Beijing, more than 10 square kilometers of industrial land have been changed in functions into residence, commerce, office, and creative industry park uses, etc.

Unfortunately, a large number of industrial buildings were demolished during the process of urban regeneration. The industrial heritage conservation is facing an extremely critical situation.

Some industrial heritage sites are changed into influential cultural and creative industrial parks through industrial heritage conservation and architecture reuse, promoting the socioeconomic transformation and development. Industrial landscape has provided the cities with a distinctive view.



Urban design of Shougang industrial heritage conservation and architecture reuse

Publications

From 2010 to 2014, IHC has published 4 proceedings with more than 300 articles. The main contents focus on as follows:

1. Value assessment and investigation of industrial heritage
2. Foreign and domestic industrial heritage protection cases
3. Foreign and domestic industrial heritage protection systems
4. Industrial heritage protection and industrial architecture reuse
5. Traditional industry production technology
6. Public issues (policy/education/museum/tourism/environment) of industrial heritage protection

Zhu, Wenyi and Liu, Boying, *Chinese Industrial Architecture Heritage Investigation, Research and Conservation*, Vol. 1-4, 2011-2014, Published by Tsinghua University Press

Czech Republic

Benjamin Fragner and Jan Zikmund

Introduction

Since 2013, activities connected with industrial heritage in the Czech Republic have been united through the Platforma Industriální stopy (*Vestiges of Industry Platform*), which has been behind a series of conferences, exhibitions and professional initiatives organised since 2001 under the same title. This platform was formed by the VCPD – Research Centre for Industrial Heritage of the Czech Technical University in Prague, which is the only institutional member of TICCIH in the Czech Republic, and the Kolegium pro technické památky (Technical Monuments Committee) of ČKAIT and ČSSI, and through its members it also collaborates with the National Heritage Institute, which is responsible for heritage conservation in the Czech Republic, the Czech National Committee – ICOMOS, the Ministry of Culture of the Czech Republic, and many other professional bodies and volunteer groups. A platform has been formed that unites professional and institutional activities in this field with informal amateur pursuits and non-governmental initiatives aimed at the conservation of industrial heritage at risk.

Recent statutory protection and changing public policies

The recent era can be described as a time of defining the limits and identifying the difficulties attached to efforts to conserve industrial heritage by discovering adapted new uses for it. The pace of discussion of this issue has been accelerated by the rapid deterioration of the technical condition of technical and industrial heritage, large numbers of which across the land have been left unused and falling to ruin for several decades and especially since the profound transformation of the Czech economy in the 1990s.



Among the most talked about demolitions in recent years was the destruction of the boiler house of strojírny Rustonka, one of the symbolic reminders of the early stages of the industrial age in Prague. © Jan Zikmund, 2014

The atmosphere has also however been profoundly shaped by the multiplicity of approaches to industrial heritage and by the various motivations and objectives behind the interest in it, which has given rise to activities with a more practical and domestic focus.

In recent years a new heritage act has been in the works (on 6 March 2013 the Czech Government approved the factual content in resolution no. 156) that will have significant implications for industrial heritage conservation. For example, it will now be possible in the Czech Republic to define a type of heritage classed as 'heritage of local significance'. This could represent a lifeline for industrial structures that are form an integral part of the cultural heritage in the particular region in which they are located.

The greater attention the state is paying to industrial heritage has begun to show itself in that more and more technical and industrial heritage sites are being listed as protected monuments, and one factor in this has been the cooperation between the VCPD – Research Centre for Industrial Heritage CTU Prague, and the Ministry of Culture. Another crucial factor has been the involvement of state institutions is the submission of a proposal to list the Saxon and Czech Montanregion Erzgebirge/Krušnohoří on the UNESCO World Heritage List. A key Czech-German project is the *Central European Cultural Landscape of Montanregion Erzgebirge/Krušnohoří – the Path to a UNESCO World Heritage Site*, developed and created in a process of long-term cooperation between the Institute for Industrial Archaeology, History of Science and Technology (IWTG) at Freiberg University of Mining and Technology on the German side and the Ústí nad Labem Region (the coordinator of the project in the Czech Republic), the Regional Museum in Most, and the Karlovy Vary Region on the Czech side.

The change in atmosphere is also apparent from the conferences and frequent meetings that have been held. Among events of particular importance and consistent with the mission of TICCIH was the conference 'A New Life for Abandoned Buildings' at the Building Fair in Brno 2013. Coinciding with the tenth anniversary of the publication of the Nizhny Tagil Charter for Industrial Heritage a Czech translation of this essential TICCIH document was published, in an effort to symbolically draw attention to values and assets that are vanishing from the Czech Republic as a result of the increasing frequency of demolitions of neglected industrial buildings and grounds.

A better understanding of conditions in the countries of the former Eastern bloc was aided by an important international conference, Industriální stopy/ čtvrt století poté (Vestiges of Industry 2014 / A Quarter Century On), organised directly on the site of a former gasometer in Ostrava-Vítkovice, which has been converted to a cultural and social centre (Gong Multifunctional Space, Dolní oblast Vítkovice, 29 August 2014, organised by the VCPD – Research Centre for Industrial Heritage FA CTU, the Vestiges of Industry Platform (Industriální stopy), the Technical Monuments Committee of ČKAIT & ČSSI, the National Heritage Institute, the Association of Historical Settlements in Bohemia, Moravia and Silesia). It summed up the characteristic features of and the problems surrounding efforts towards the conservation and adapted re-use of heritage, but too often also the reason why industrial heritage has been at risk since the 1990s in countries that have repeatedly suffered from historical disruptions and political shakeups and have been been it by dramatic economic transformations. Papers were presented by participants from Poland, Slovakia, former East Germany, György Németh spoke on experiences and the role of TICCIH in Hungary and Benjamin Fragner on the Czech Republic.



View of the gasometer at Vítkovice Ironworks in Ostrava, converted to Gong Multifunctional Centre in 2012. © Tomáš Souček

Opportunities for the cultural re-use of industrial heritage were the subject of a spontaneous public discussion at the international conference *Culture Factories and the City*, organised as part of preparations for *Pilsen 2015 – European Capital of Culture*. A direct outcome of the discussion was that projects with a shared focus were also successfully implemented in practice. (Světovar Brewery, Pilsen, 16–19 September 2013, in cooperation with the VCPD – Research Centre for Industrial Heritage, the Industriální stopy/Vestiges of Industry Platform, supported by the Swiss-Czech Cooperation Programme).

Since 2012, Technical and Industrial Heritage Day has been providing an opportunity to update the picture of changing public policies on industrial heritage and the social urgency of heritage issues. The events are usually held on the second Saturday in September to coincide with European Heritage Days, and are organised in cooperation with the Association of Historical Settlements in Bohemia, Moravia, and Silesia and the Czech National Committee – ICOMOS. These events have witnessed increasing involvement from museums, private collectors, civic initiatives working to protect monuments at risk, and even from owners of industrial objects. The day provides an occasion to visit places that are otherwise inaccessible and to draw attention to heritage that is at risk.

The progress being made by industrial heritage inventory programs

Industrial heritage is systematically identified and assessed in the Czech Republic through several parallel research projects initiated and largely also funded by the Ministry of Culture. A primary one was the broad multi-year research project *An Industrial Topography of the Czech Republic* (principal investigator Benjamin Fragner together with the team at the VCPD – Research Centre for Industrial Heritage), which mapped still-standing structures and sites region by region and in reference to their historical and architectural values and regional priorities. The project produced a database that includes basic identifying information on structures and sites, typological classifications, and records of

structural history and authorship, and by the end of 2014 the database contained more than 17,000 entries. The database serves as the basis for filling in information and conducting further research on industrial heritage in the Czech Republic, and has served as a resource for publishing unique surveys of heritage in most regions of the Czech Republic in book and electronic format (see the List of Publications), including a popular online version available at: www.industrialnitopografie.cz.

Other ongoing projects and inventory programmes that need mentioning include most notably *Surveys and Presentations of 19th- and 20th-Century Architecture* (coordinated by the National Heritage Institute) and the research project *The Industrial Heritage of Moravia and Silesia* (principal investigator Miloš Matěj with the staff of the National Heritage Institute and Petra Mertová and staff at the Technical Museum in Brno), which on its completion in 2015 resulted in a publication and a specialised map called *Technical Monuments of Moravia and Silesia*.

The principal projects for conversion or rehabilitation

Despite the diverse range of professional activities and popular initiatives and events that have taken place in the past three years, new conversion projects have done the most to draw attention to industrial heritage. And this is despite the fact that from the perspective of heritage conservation and the more demanding perspective of architectural criticism these projects are sometimes questionable in terms of their concepts or approaches and above all the extent of new interventions into historical architecture they entail. However they still represent a form of hope and an approach to a heritage whose value we acknowledge and would like to protect, but for which it is difficult to find new uses because these sites continue to lack maintenance, fall to ruin, and see a deterioration in their technical conditions, so that they are ultimately lost entirely or turn into a new burden for the environment.

For this reason, in addition to conducting an inventory of industrial heritage, one of the objectives of the *Industrial Topography* project was to gather materials, experiences, and alternative solutions that could inspire a reassessment of the at-risk and neglected housing stock, and thus the sustainable use of industrial heritage and thereby also environmental restoration. Examples of projects for the conversion or re-use of the industrial heritage in the Czech Republic are included in *Industrial Topography/The Architecture of Conversion*, which provides an overview of the topic and a summary of an exhibition of the same name. It presents the most frequently discussed and often polar-opposite architectural approaches applied to conversions. One such example is the conversion of the industrial complex of Lower Vítkovice in Ostrava, the grandest such project in the Czech Republic, which includes the former gasometer used as a site for social events, the new attraction of the publicly accessible blast furnace, and many other structures converted to new uses. A different example is the unique attempt to rehabilitate Metternich Brewery in Plasy, which was in a devastated state, and where the Centre for Construction Arts of the National Technical Museum was established. The publication contains a selection of several dozen buildings and sites whose conversions represent a very diverse range of possible uses and above all distinct architectural solutions exhibiting the different degrees of intervention and the distinct motivations by the investors that can currently be encountered in the Czech Republic (this was designed to be a travelling exhibition in Czech and English and accompanied by an illustrated catalogue: see the List of Publications).



View of the interior of the brewery in Plasy renovated into the Centre for Building Heritage/ National Technical Museum. © Kateřina Uksová, 2014

New site museums

As part of the long-term revitalisation of Lower Vítkovice in Ostrava an interactive exhibit called the Little World of Technology U6 opened in late 2012 in the former central power station of Vítkovice ironworks, which in an accessible way provides the public with information about scientific and technological development in the Czech Republic and in the world. In September 2014 it was joined by the adjacent Big World of Technology (Science and Technology Center). A similarly generous project was the conversion of two factory buildings of the Baťa Company in Zlín at 14|15 Baťa Institute, which since 2013 has been home to a regional gallery, a museum, and a library. The Glass Arts Centre at František Glassworks in Sazava offers an interactive exhibition of glass. In the meantime numerous less expensive exhibition projects have also emerged such as The Museum of Old Machines in the former Vonwiller factory in Žamberk (2014) or the exhibitions devoted to the history of brewing in the restored breweries in Lobeč (2014) and Kostelec nad Černými lesy



Smoke sent puffing from the restored smokestack of Lobeč brewery on Technical and Industrial Heritage Day in the Czech Republic. © Benjamin Fragner

Training programmes

The majority of teaching activities and studying programmes devoted to industrial heritage at post-secondary institutions in the Czech Republic focus primarily on the subject of adapted re-use, usually within the framework of study programmes in architecture and civil engineering. At the master's level this includes the studio courses and student assignments to create alternative architectural projects, for instance, at the Faculty of Architecture CTU in Prague (National Heritage Institute FA CTU). The most important level of study for this field is the doctoral level (Institute of Architectural Theory and History), which partakes in the work of the Research Centre for Industrial Heritage and prepares materials for alternative projects for the re-use of industrial heritage in the Czech Republic. Within the framework of internal grants for doctoral study at the Faculty of Architecture of the Czech Technical University workshops have been organised for students of architecture on the subject of heritage re-use and on the renovation of Žižkov Freight Station in Prague (2012) and Winternitz Mills in Pardubice (2013), which were instrumental in achieving the conservation of these unique structures.

The Faculty of Civil Engineering CTU regularly calls for theses in the doctoral study programme of *Sustainable Development and Industrial Heritage*. Another area is the study of industrial heritage from the perspective of economic history (Institute of Economic and Social History at the Faculty of Arts of Charles University), and the study of the environment during the rise and boom of industrialisation is the focus of the Centre for the Complex Study of the Material and Landscape Aspects of Industrialisation at the Faculty of Humanities of Charles University.

Significant publications since 2012

BERAN, Lukáš, ed. – VALCHÁŘOVÁ, Vladislava, ed. – ZIKMUND, Jan, ed. *Industriální topografie / Olomoucký kraj*. (Industrial topography / Olomouc Region) Praha: ČVUT VCPD FA, 2013. ISBN 978-80-01-05230-3 (introduction and annotation in English and German)

BERAN, Lukáš, ed. – VALCHÁŘOVÁ, Vladislava, ed. – ZIKMUND, Jan, ed. *Industriální topografie / Plzeňský kraj*. (Industrial topography / Pilsen Region) Praha: ČVUT VCPD FA, 2013. ISBN 978-80-01-05396-6 (introduction and annotations in English and German)

BERAN, Lukáš, ed. – VALCHÁŘOVÁ, Vladislava, ed. – ZIKMUND, Jan, ed. *Industriální topografie / kraj Vysočina*. (Industrial topography / Vysočina Region) Praha: ČVUT VCPD FA, 2013. ISBN 978-80-01-05544-1 (introduction and annotations in English and German)

BOROVCOVÁ, Alena. *The Cultural Heritage of the Kaiser Ferdinands-Nordbahn*. Ostrava: NPÚ, 2013. ISBN 978-80-85034-72-1 (published in Czech and English)
Charta průmyslového dědictví TICCIH. (TICCIH Nizhny Tagil Charter for the Industrial Heritage, VCPD FA ČVUT), Praha: ČVUT VCPD FA, 2013. ISBN 978-80-01-05235-8.

FRAGNER, Benjamin – VALCHÁŘOVÁ, Vladislava. *Industriální topografie / Architektura konverzí, Česká republika 2005–2015. Industrial Topography / The Architecture of Conversion, Czech Republic 2005–2015*. Praha: ČVUT VCPD FA, 2014. ISBN 978-80-01-05592-2 (Czech and English)

MATĚJ, Miloš – KLÁT, Jaroslav – PLCHOVÁ, Jarmila – KYSELÁK, Jan. *Cultural monuments of the Rosice-Oslavany Industrial Area*. Ostrava: NPÚ, 2013. ISBN 978-80-85034-73-8 (published in Czech and English).

MATĚJ, Miloš – KORBELÁŘOVÁ, Irena – TEJZR, Ludvík. *Kulturní dědictví Vítkovických železáren*. (The cultural heritage of Vítkovice Ironworks) Ostrava: NPÚ, 2014. ISBN 978-80-85034-80-6 (English resume)

RYŠKOVÁ, Michaela – JURÁK, Petr. *Kulturní dědictví textilního průmyslu Frýdku-Místku. The Cultural Heritage of the Frýdek-Místek Textile Industry*. Ostrava: NPÚ, 2013. ISBN 978-80-85034-77-6 (published in Czech, edition prepared for publication in English)

RYŠKOVÁ, Michaela – MERTO VÁ, Petra. *The Cultural Heritage of the Brno Textile Industry*. Ostrava: NPÚ, 2014. ISBN 978-80-85034-82-0 (Czech and English)

VALCHÁŘOVÁ, Vladislava, ed. *Industriální topografie / Královéhradecký kraj*. (Industrial topography / Hradec Králové Region) Praha: ČVUT VCPD FA, 2012. ISBN 978-80-01-05143-6 (introduction and annotations in English and German)
KOLKA, Miroslav, *Technická zařízení na vodní pohon na Cvikovsku*. (Water-drive technology in Cvikovsko) Liberec: NPÚ, 2012. ISBN 978-80-904852-9-7.

VALCHÁŘOVÁ, Vladislava, ed. *Industriální topografie / Pardubický kraj*. (Industrial topography / Pardubice region) Praha: ČVUT VCPD FA, 2012. ISBN 978-80-01-05045-3 (introduction and annotations in English and German)

VONKA, Martin. *Tovární komíny. Funkce, konstrukce, architektura*. (Factory smokestacks: functions, structures, architecture) Praha: ČVUT VCPD FA, 2014. ISBN 978-80-01-05566-3 (English resume)

Denmark

Frank Allan Rasmussen

President of the Society for the Conservation of the Industrial Heritage in Denmark

Denmark is a small country on the periphery of Europe with a population of approximately 5,5 million. As in other industrialized countries, the Danish landscape is shaped by centuries of human activity and only a few places are left untouched by man. Denmark is known for its design, architecture and engineering as well as agricultural products.

The strong relations with Great Britain have left a visible imprint on Denmark. Denmark experienced an industrialisation somewhat delayed compared to the larger European nations but certain industries gained international importance – notably in the field of diesel engines, maritime technology and cement.

Protection and public policies

The Danish Society for the Conservation of the Industrial Heritage publishes *Factory&Dwelling* as one of its activities, but also engages in other topics related to the industrial heritage in Denmark. *Factory&Dwelling - the Industrial Heritage of the Nordic Countries* is an annual publication which presents academic articles dealing with the industrial heritage in Sweden, Norway and Finland. The editorial board welcomes international articles with a Nordic angle. All articles are peer reviewed and all major articles offer comprehensive summaries in English.

The purpose of the Danish national society is to generate interest in the documentation and exploration of the history of industrialization and for the preservation of buildings from the industrial epoch, housing and cultural environments. The President of the society is the national representative of The International Committee for the Conservation of the Industrial Heritage (TICCIH).

Denmark is rich in industrial sites and monuments. Some of them are protected by the Act of listed buildings which is administered by the Heritage Agency. The Agency is a body under the Danish Ministry of Culture. It has the regulatory responsibility for sites and monuments, listed buildings, and the many different museums working in the field of industry and technology. The Agency also holds the overall responsibility for industrial archaeology undertaken by the state-approved museums. Danish museums are regulated by law. The Museum Law was revised in 2012.

Physical planning is an important instrument for the conservation, development and promotion of the tangible components of our industrial heritage. Since 2007, the local municipalities have been the main stewards of industrial heritage in Denmark, in that municipal land-use plans are required to formulate guidelines and objectives to safeguard heritage assets. Those assets may be individual elements – from grand industrial monuments to more humble vestiges such as workers' dwellings.

There have been several good examples in Denmark over the last 10 years, but one is particularly outstanding. In 2012 the municipality of Halsnaes together with the local museum of industry launched a competition. The purpose of the architectural competition named "Steely Urban Spaces" was to show how the industrial heritage of the Danish town

of Frederiksværk could be enhanced and contribute to the future urban development in a way in which architecture and communication of the overall project support each other.

The winning project “Landscape, works and town” is based on an open and appreciative understanding of history as progressing from the past up until today and into tomorrow. Four historical layers hold stories and psychological imprints in the urban landscape and thus overlap each other. The project weaves together four methods of presenting the rich industrial history of Frederiksværk: the physical, the digital, the strategic and the cultural. The goals are clear. The municipality wants to use this exciting industrial history in making new opportunities for growth and development and in drawing new segments of tourists to the municipality.



Frederiksværk. The former gun foundry dating back to the 1760-ties

During the last decade, the interest in Danish industrial archaeology has been growing especially in the Copenhagen area. Some of the results are presented in Henrik Harnow, David Cranstone, Paul Belford and Lene Høst-Madsen (eds.), *Across the North Sea. Later Historical Archaeology in Britain and Denmark, c. 1500-2000*. University Press of Southern Denmark 2012.

In 2004-2007, the Cultural Heritage Agency implemented a special project to shed light on the heritage of the industrial society and to enhance museum research in industrial history. As one of the results, [25 industries of special importance](#) to Denmark were selected. The Agency also selected and described more than 160 regional sites and conducted a wide range of surveys. The Cultural Heritage Agency of Denmark has made several [on-line guides](#).

Listed buildings and monuments

Industrial buildings give architectural as well as cultural insights into various periods in the history of Denmark. The Danish Agency for Culture is responsible for the listed buildings, whereas the local authorities are responsible for the buildings worthy of preservation. There are more than 9,000 listed buildings in Denmark including the industrial monuments.

For a number of years, the Agency has been focusing on industrial heritage in order to ensure that this important part of Danish history is valued and used as a resource in the future development of Danish society. For [further information](#).

Overview of some of the listed industrial monuments and buildings 2013-15:



De Danske Spritfabrikker Aalborg 2015 [The Danish Distillery]

The Danish Distillery in Aalborg is a masterpiece of industrial architecture. It was completed in 1931 and was then the largest concrete construction in Denmark and a model factory in every way. The architect is Alfred Cock- Clausen.



Rønne Elektricitetsværk og Badeanstalt 2015 [Ronne power plant]

The industrial complex Ronne Power Plant and Bathhouse is listed because of its size and architectural characteristics which are typical of classic public buildings in the provinces of Denmark. The buildings were designed by architect Anton Rosen.



Ballonhangar i København 2014 [The Balloon Hangar]

The Balloon Hangar belongs to the past, but it has now been listed by the Agency. This most untraditional building has great architectural and historical value and represents a significant element in one of the green suburbs of Copenhagen.



Irmas Kafferisteri København 2014 [The Coffee Roaster]

The Coffee Roaster building in the suburbs of Copenhagen is a characteristic building that serves as a local landmark. The building was constructed in 1968 and is designated because of its excellent architectural and historical values. The building was designed by the architects Mackeprang and Klerk.

In Denmark, the task of promoting industrial heritage lies in the hands of the Cultural Agency, but the museums have a common strategy formulated within a national network: "The Industrial Pool". Once a year, the Danish museums working with industrial culture can apply to the Agency for funding for special tasks in the field of preservation and documentation as well as to a number of different funds. The Danish industrial museums are frequent users of social media such as Facebook and Flickr and generally use the web to promote their work with Denmark's outstanding industrial heritage. Selected examples:

- The Frederiks Vaerk Museum of Industry (Industrimuseet Frederiks Værk) www.indmus.dk
- Danish Museum of Industry (Danmarks Industrimuseum) www.industrimuseet.dk
- Danish Museum of Technology and Science (DTM) www.tekniskmuseum.dk
- Brede Works (Nationalmuseet Brede) www.bredevaerk.natmus.dk
- The Workers Museum (Arbejdmuseet) www.arbejdmuseet.dk
- Energy Museum (Energimuseet) www.energimuseet.dk
- GasMuseum (Gasmuseum) www.gasmuseet.dk
- The Danish Railway Museum (Jernbanemuseet) www.jernbanemuseet.dk
- Dieselhouse (Dieselhouse) www.dieselhouse.dk

Besides the governmental involvement there is a series of semi-official institutions in relation to the protection and management of the industrial heritage:

"House of Heritage" (Dansk Bygningsarv) is a private consultancy that advises funds, public authorities and building owners on the use, conservation and development of the built heritage. They activate and recycle buildings, structures and cities through interdisciplinary studies, projects and campaigns, and they see an active use of the built heritage as the best conservation strategy. www.bygningsarv.dk

"The Danish National League for Built Heritage and Landscape" (Landsforeningen for Bygnings- og Landskabskultur) is a non-governmental organization, established in 1990. While organizations of a National Trust type seek protection through possession, the legislation in Denmark encourages public participation in the process of physical planning and listing of buildings. For this and other reasons Denmark has been barren soil for the growth of a National Trust. Instead, it has motivated the formation of local societies for built heritage, more than 100 of which are under the umbrella of the National League. www.byogland.dk

Finally, there is the abovementioned Society for the Conservation of the Industrial Heritage, and last but not least the abovementioned network, where museums with interest in the industrial heritage cooperate. The "Industrial Pool" hosts two annual meetings with presentation of new projects, sharing of ideas and coordination of initiatives in relation to the task of identifying, surveying, recording and protecting the industrial remains in Denmark for future generations. www.industripuljen.dk

Recent activities

In Denmark, surveying is fundamental for the study of industrial heritage. Such records include descriptions, drawings, photographs and video recordings. An overview of industrial

heritage in Denmark has just been published. The book presents to English-speaking readers some of the results of this commitment:

Caspar Jørgensen and Morten Pedersen (eds.), *Industrial Heritage in Denmark. Landscapes, Environment and Historical Archaeology*, Aarhus Universitets Forlag og Kulturstyrelsen 2014.

The Danish Agency has supported the industrial heritage work of a number of museums and municipalities through a special Appropriation from the Danish Parliament 2004-2011, and via the funds allocated to museum projects every year. This effort has created a greater knowledge of industrial environments and heritage. Currently the Agency is promoting the integration of industrial heritage and especially the 25 industrial sites of national significance into local planning and the values of the Danish industrial heritage as a resource for cultural tourism and development.

The Business Archives is a part of the National Archives in Denmark, which aims to collect and preserve important historical source material about Danish industrial and business development. Most of the records kept are from the commercial and industrial sectors, but there are also significant amounts of records from transport, finance and the insurance businesses. Unfortunately the Business archive is closed down for the next few years due to relocation.

In the course of the last 10-15 years a new generation of industrial historians has made its mark on the subject. This group has turned its focus from singular buildings, plants, machines and tools to a much broader concept of industrial environments, which has resulted in a number of publications of high academic standards.

During the last decade, a greater attentiveness to the industrial landscapes has evolved, as well as a greater concern for combining tangible and intangible history with the realisation that landscapes do not necessarily tell a single history but may consist of several layers of stories.

There are still many challenges. We need to develop a greater interconnection between the academic approach at the universities and the work done in our museums to engage a larger percentage of the population in using our common industrial past as a resource in the future development of our cities and landscapes.

Training programmes

Within the last few years, Denmark has seen a growing interest in both education and training. New and larger target groups have been reached, but Denmark has no formal academic forum for training in industrial archeology, conservation and preservation. Three relatively small centres focusing on business history, with a twist of technology and industry takes care of the formal education of historians and researchers - one at The Business School in Copenhagen (CBS), another at the University of Aarhus and finally one at the University of Southern Denmark.

Publications

Ellen Braae, *Beauty Redeemed. Recycling Post-Industrial Landscapes*. Ikaros Press/Birkhäuser Verlag 2015

Louise Karlskov Skyggebjerg, *Ellehammer. En historie om at arbejde med opfindelser*. Danmarks Tekniske Museum 2015

Henry Nielsen, Kristian H. Nielsen, Keld Nielsen, and Hans Siggaars Jensen. *Forandringens vinde. Ny teknologihistorier*. Nyt Teknisk Forlag 2015

Martin Jes-Iversen, *Turn Around. Kampen om GN Store Nord*. København 2015

Caspar Jørgensen and Morten Pedersen (eds.), *Industrial Heritage in Denmark. Landscapes, Environment and Historical Archaeology*. Aarhus Universitets Forlag og Kulturstyrelsen 2014

Jørgen G. Berthelsen. *Danmarks teglværker – Fredensborg og Hørsholm Kommuner*. Museum Sønderjylland/Cathrineminde Teglværk 2014

Verner Bjerger and Jacob Hanquist Petersen, *Danmarks teglværker – Horsens Kommune*. Museum Sønderjylland/Cathrineminde Teglværk 2014

Elisabeth Vestergaard, Torben A. Vestergaard, and Hans Schultz Hansen (eds.), *Sønderjysk Erhvervshistorie 1800-2000*. Syddansk Universitetsforlag 2013

Søren B. Andersen og Erik Lund, *Menneskeskabt – Grundbog i teknologihistorie*. Nyt Teknisk Forlag 2013

Kristoffer Jensen, *Beklædningsindustriens møde med globaliseringen*. Syddansk Universitetsforlag 2013

Henrik Harnow, David Cranstone, Paul Belford, and Lene Høst-Madsen (eds.), *Across the North Sea. Later Historical Archaeology in Britain and Denmark, c. 1500-2000*. University Press of Southern Denmark 2012

Finland

TICCIH-FINLAND

The Finnish Society for the Industrial Heritage (Teollisuusperintöseura ry – Industriminnesföreningen rf) is the Finnish national representative of TICCIH. For the moment, Tuija Mikkonen acts as the Chair of the Society. The other members of the board are Lauri Putkonen (Vice-Chair), Teemu Ahola, Maarit Grahn, Risto Hakomäki, Eerika Koskinen-Koivisto, Hannu Matikka, Sanna Kupila, Kirsi Ojala and Pauli Sivonen. Tarja Antikainen is the secretary of the Society. This report was written by the board members with help of other experts.

Among other activities the Society gave a statement to the Helsinki City board against the initiative to deconstruct the historical dam of river Vantaa at Helsinki Vanhakaupunki rapids in 2015. The dam is an inseparable part of the historical power plant, which both are listed as historic properties by the National Board of Antiquities. The Helsinki City board finally rejected the deconstruction project in May 2015.

History of technology and industry – European Heritage Days 2015

The Finnish Society for the Industrial Heritage (TICCIH-Finland) has actively promoted information about the European Industrial and Technical Heritage Year 2015. The society is collaborating with European Heritage Days in Finland and most of the events will be carried out in the autumn of 2015. Sanna Kupila, the Board member of TICCIH-Finland, has participated in a work group which is building a new network called European Heritage Communities in connection with the European heritage days.

In April 2015, *Satakunnan Historiallinen Seura* (Satakunta Historical Society) organized a seminar about Industrial Heritage of Satakunta region in Harjavalta municipality in Western Finland. The topics of the presentations varied from industrial history to reuse of industrial heritage. The seminar was part of the European Heritage Days' program.

National strategies give guidelines for industrial heritage work

Finnish Government approved the resolution on the Cultural Environment Strategy 2014-2020 on 20 March 2014. An implementation plan was finalized by a working group led by the Ministry of the Environment in January 2015. The strategy bolsters the value and good management of cultural environment. Industrial environments are included in the sphere of the strategy. According to the strategy, a well-maintained and strong cultural environment increases people's well-being. In addition to this, it is an important aspect in the development of business and trade, and the creation of a comfortable living environment.

The Finnish Government also approved the resolution on the National World Heritage Strategy 2015-2025 on 16 April 2015. The strategy gives the guidelines about world heritage policy and how UNESCO World Heritage Convention will be carried out in Finland. Finland has one industrial World Heritage Site, the Werla Ground Mill in Kouvola.

Industrial heritage tourism

Cultural tourism is an important part of the work around industrial heritage. The old Makkarakoski sawmill (built in 1875) in the Noormarkku ironworks area in Western Finland was renovated and opened as a sawmill museum in 2014. It is a typical Finnish sawmill from the late 19th century and early decades of the 20th century and one of two still existing industrial sawmills from the water-driven sawmill period. Finland's National Board of Antiquities has classified the sawmill building as an internationally significant sawmill heritage.



Log bed, log carriages (1880, Bolinder) and frame saws (1882) at the Makkarakoski sawmill museum. The sawmill was built in 1875. © Hanna Jaakola 2014

The exhibition 'Ahlström Voyage' situated in the old workshop building in the Noormarkku ironworks area will be extended, and the new exhibition was opened in May 2015. The original exhibition depicts the phases of the company's development from the very first up to the present. One of the new parts of the extended exhibition presents the history and famous glassware of Karhula, Iittala and Riihimäki glassworks which earlier were parts of A. Ahlström Corporation. Both the sawmill museum and the exhibition 'Ahlström Voyage' are private museums, held by A. Ahlström Kiinteistöt Oy, a real estate company.

Verla world heritage site

Verla Groundwood and Mill is the only industrial World Heritage Site in Finland. A large reparation project at the mill was carried out during 2012-2014 when the shelter dam was built to separate the Verla board mill from the river. The shelter dam improves significantly the conditions of the site's long-term preservation. The partners of the project - the owner of the World Heritage site, UPM Kymmene Oyj Corporation; Verla power plant's owner, the energy company KSS Energia Oy; and the National Board of Antiquities - carried out the planning of the project for many years, since 2007.

The structures and objects of the board mill had suffered from too high humidity over the decades. In addition, the possibility of floods had increased the risks to safety of the site.

The shelter dam eliminates the water leaks through the granite wall to the board mill building and prevents the risks of floods. The free standing dam was built of steel and concrete. The space between the dam and the building was planned as a route and an exhibition space for museum visitors. The route offers visitors a new perspective to the authentic board mill complex and provides new ways of presenting the use of hydropower in the old times in Verla. The new route will be integrated to the 'Verla historic walk' that will be opened in summer 2015.



Verla rapids and the new shelter dam in the foreground. Verla groundwood and board mill behind. © Lassi Kujala 2014

Recent documentation work

Finnish museums have collaborated as a network since 2009 to develop a common division of documentation and strengthen the present day documentation in museums. The network *TAKO* has seven pools and pool number 4 is focusing on Production, Services and Working life/Employment. The pool 4 has seven work groups including metal industry, plastic production, forestry sector, mining sector and game industry. The working groups are applying funds for documentation projects and are mapping the collections to create understanding of the big picture of the collections around the industrial heritage. The Museum of Technology is active in all five groups and is chairing the game industry group.

The Museum Centre of Turku has continued contemporary documentation of industrial processes. The Leaf candy factory in Aura municipality went out of business in 2013 and before the production line was set down the museum made a documentation of the production processes. Still operating factory Turun Uunisepät, which produces modern style stoves, was also documented in 2013. The factory also produces tiled stoves using tiles from another local factory, whose production process was also documented in 2014 by the Museum Centre.



Vesa Juntunen moulds prefabricated stove units at Turun Uunisepät. © Martti Puhakka

In 2013, the City of Turku constructed a new waste water treatment facility. The old one, which was situated on open ground in the brown field area, was demolished in 2014. Before the activities of the old refinery were stopped the Museum Centre of Turku made a photo documentation of the whole area and documented even the production process.

Statutory protection of the industrial heritage

In Finland the Land Use and Building Act is the most useful means to protect buildings or building groups in local detailed plans that are made by municipal authorities. There is no common register about protection figures, but many industrial sites have been protected in detailed plans in different towns and municipalities. Outside the areas of detailed plans, especially in the countryside, the Act on the Protection of Built Heritage can be used. One example of using the Act is the protection of workers' houses of the Dalsbruk ironwork in Kemiönsaari municipality in Southern Finland in 2014.

In 2015, a new National Urban Park was established in Forssa, where former textile mills are an important part of the park.



The old spinning mills of Forssa, established in 1847. ©: Lauri Putkonen, 2015

Reuse of industrial sites

Shopping Centre Puuvilla was opened in the former Pori cotton mill area in autumn 2014. The cotton mill was established in 1898, and the factory operations ended in 1994. The weaving mill burned down in 1981. One of the major steps in the development of the area was when the University Consortium of Pori moved into the area in 1999.

The new shopping centre was built mainly on the area where the weaving mill was situated before the 1981 fire. For the last years, the location of the weaving mill was used as a parking lot. The new shopping centre is owned jointly by a real-estate developer Renor Ltd and an insurance company Ilmarinen.

Joint efforts of the museums

As a result of a unique collaboration of nine Finnish museums in connection to the 70th anniversary of World War II, eight different exhibitions were opened in April 2015.

The Traffic Museums Association started a joint exhibition project called 'On the Move! - Finland after World War II'. By jointly marketing, exhibitions and services, the project raises the profile of the museums and helps to attract more visitors. The project set up networks of industrial heritage and cultural tourism. One of the main goals of the project is to develop new concepts for providing joint exhibitions and mobile services.

In April 2015, the Museum of Technology opened a photo exhibition on *Strömberg* electrical engineering industries as a part of the joint exhibition. *Strömberg* played a vital role on the national electrifying project after the World War II.

Kids, museum and technology – a new program at the museum of technology

The program *Kids, Museum and Technology* is designed to develop technology education for children from 6 to 8 years as part of their museum engagement. The main educational goal is to familiarize children with technology through creative activities and play. One of the main themes of the program is to introduce stories behind Finnish innovations, innovators and innovating. The program is co-operating with a research group *Learning Futures* in the Department of Teacher Education at the University of Helsinki. The program is funded by the Finnish Ministry of Education and Culture. The project uses versatile, multimodal methods that support children's creative engagement and meaning-making concerning technology. This includes the use of various artifacts and demonstrations, social interaction, media and communication technology, pictures, drawings, storytelling, playing and drama.

In the program *Kids, Museum and Technology* researchers, designers and educators together with children, first design museum spaces and activities, then test them in practice, and finally reflect and evaluate their work. This is a new model for creating exhibitions, workshops and activities for children in museum settings. The process integrates children's perspective in the pedagogical development of museum activities and environments.

Education and training

Industrial heritage is one of the main subjects of cultural heritage studies at the degree program of cultural production and landscape studies at the University of Turku, Pori campus. Several courses dealing with industrial heritage are organized in Pori during 2013–2015. Industrial heritage is also one of the subjects in European master's program. The director of industrial heritage studies is Dr. Anna Sivula.

Also a few theses touching industrial heritage are published every year at the degree program of cultural production and landscape studies. The first dissertation of the program was published in 2014, when Maarit Grahn studied the role of cultural heritage - including industrial heritage - in corporate culture, identity and image of family business. The questions are addressed in the context of A. Ahlstrom Corporation, one of the oldest industrial companies in Finland.

A project that investigates the industrial heritage as a resource of the post-industrial era has been carried out during 2014–2015 at the University of Turku. The aim of the project is to give concrete guidelines for a controlled production, productization and development of industrial heritage in Satakunta region in Western Finland. The members of the project are PhD Anna Sivula, PhD Maarit Grahn and M.A. Anni Ruohomäki.

In 2013, Aalto University hired Dr. Mats Frilund as Associate Professor of Industrial history for a period of 5 years. He teaches courses related to Industrial history and History of Technology at Aalto University in Espoo.

City of Turku participates in an international IFHP Urban Planning and Design Summer School in cooperation with Aalto University. In 2013, the study object of the architect students was an old Soap factory in Turku. The students planned new uses for the buildings as a part of the studies.

In 2014, *New Waves - Emergent perspectives in Nordic history of industrialization and innovation* - a monthly symposia series - was arranged by Aalto University, University of Helsinki and the Finnish Economic History Association presenting new emerging research perspectives on the history of industrialization and innovation by researchers in the Nordic countries. Each symposia gather presentations around a shared theme from a Finnish and an invited Nordic researcher. The responsible program committee consists of Mats Fridlund, Professor of the History of Industrialization at Aalto University, Sakari Heikkinen, Professor of Economic History at University of Helsinki and Niklas Jensen-Eriksen, Casimir Ehrnrooth Professor of Business History at University of Helsinki.

Recent publications

The journal *Tekniikan Waiheita – Teknik i tiden*, published by the Society for the History of Technology, is the main journal in the field of industrial heritage. The issue 2/2012 was dedicated to the industrial heritage. There were articles about the documentation of industrial work, reuse and history of industrial sites and the role of archaeology in industrial heritage work. Another thematic issue concerning industrial heritage was Nr 2/2014 dealing

with industrial heritage and cultural heritage processes in the context of different concrete examples.

Edited volume *Med industriarvet som inspirationskälla – Teollisuuserintö inspiraation lähteenä* (Industrial heritage as source of inspiration) was published in 2014. The articles deal with different industrial heritage cases both in Finland and Sweden. They are based on the seminar arranged in Sundsvall, Sweden, on 24–25 April 2013. The seminar was a part of a project called *KulturBygge* (2012–2013). The cooperation parties of the project were Satakunta Museum, Murberget the Västernorrland County Museum and Sundsvall Museum.

Monographies of Industrial Heritage:

Grahn, Maarit (2014): Perheyhtiö ja paikallisuus. A. Ahlström Osakeyhtiön historian perintö Noormarkussa. [Family Business and Locality: The historical heritage of A. Ahlström Corporation in Noormarkku]. Online: <https://www.doria.fi/handle/10024/94239>

Koskinen-Koivisto, Eerika (2014): Her Own Worth Negotiations of Subjectivity in the Life Narrative of a Female Labourer. *Studia Fennica Ethnologia* 16. Helsinki: Finnish Literature Society. <https://kirjat.finlit.fi/index.php?showitem=3031>

Marttila, Juuso (2014): Työ teollistumisen ja arjen rajapintana. [The importance of work in communities and the transference of industrialization into their everyday life - A case study of two Nordic ironworks communities, Ramnäs and Strömfors, 1880-1950.] Dissertation based on articles. Online: <https://jyx.jyu.fi/dspace/bitstream/handle/123456789>

France

Geneviève Dufresne

Vice-President of the CILAC, TICCIH French National Representative

English version, Paul Smith

Since TICCIH's Taiwan congress in 2012, the interest for the industrial heritage in France has by no means diminished, even if economic difficulties and budgetary restrictions continue to affect both State and local authority initiatives. But the realities in the field vary widely in qualitative and geographical terms. The inventory of the industrial heritage, now placed under the auspices of the country's regional councils, is still in progress, but that progress is far too slow. In many parts of the country, the industrial heritage survey has not been properly commenced, and although some prestigious industrial heritage sites have recently been given statutory protection, many others, worthy of a measure of protection, are left in a state of dereliction and are threatened with demolition. For many local authorities, the preservation of abandoned factories—each day more numerous as deindustrialisation pursues its apparently inexorable course—is a major preoccupation.

Only too often, however, these local authorities are unable to come up with a viable and lasting reconversion project. The threats of demolition hang particularly heavily over urban industrial sites, their value as real estate hungrily appraised by developers and demolition firms which often buy up these sites, remove the buildings, depollute the soil and then sell off the land to promoters, making a tidy profit in the process. The unconsidered demolition of unprotected industrial sites is all too frequent an occurrence. Nonetheless, the last three years have seen some admirable projects coming to completion or well under way.

The advance of industrial heritage location surveys

Today, inventory work on the industrial heritage, as on other heritage fields, is placed primarily under the auspices of the country's regional authorities, of which there are 26 at the moment (a reform is currently envisaged to reduce their number). Some of these regions employ full-time industrial heritage researchers, whilst others commission survey work from private researchers or agencies.

Since 2012, the inventory programmes undertaken in several departments have been completed. In the Hérault department (Languedoc-Roussillon region), in Calvados, the Pays d'Auge, the towns of Caen and Lisieux (Basse-Normandie) and in the Doubs and the Pays de Montbéliard (Franche-Comté). These programmes have resulted in several publications (see bibliography). The study of the industrial basin of Lacq, where natural gas was discovered in 1951, and of the associated new town of Mourenx (Pyrénées-Atlantiques), culminated in the organisation of an international conference, the proceedings of which have been published in the national 'Cahiers du Patrimoine' collection. The perfume industry of the city of Grasse (Alpes-Maritimes department in the Provence-Alpes-Côte d'Azur region) will also be the subject of a publication in the same collection. In Alsace, a landscape approach to the industrial heritage has been applied the study of the valleys of the upper Rhine and the Vosges, where industry shaped the territory. In Franche-Comté, work is being pursued on the local clock and watch-making activities.

The example of the Île-de-France Region

Over the past few years, the general council of the Seine-Saint-Denis department, followed by the region's council, in collaboration with the departments of the Val-de-Marne and the

Essonne, and the CAUEs (Conseils d'architecture, d'urbanisme et d'environnement) of the Yvelines and Val-d'Oise departments, have all launched policies of 'heritage diagnostics' (mapping of sites, localisation on the ground, characterisation and evaluation...) for a certain number of their communes. The ambitions of these operations are varied and numerous, but the studies are primarily designed to be made available as rapidly as possible to elected representatives in the local authorities and to the various planning agencies concerned. The survey work is as exhaustive as possible, taking into account small workshops, larger industrial monuments and former industrial zones. This 'diagnostic' approach complements more traditional inventory programmes and the in-depth studies on major sites.

Amongst these major sites is the study undertaken at Champagne-sur-Seine (Seine-et-Marne) on the factories of the Schneider and Company firm. In 1901, the company, based at Le Creusot, decided to transfer its electricity works to this small village. The architect Paul Friesé designed a cathedral-like factory building which still dominates the centre of the village. A publication and a documentary film entitled 'Et l'usine créa la ville' (And the Factory made the city) both gave accounts of this remarkable story.

Recent statutory protections of industrial heritage sites

It would be agreeable, from one national report to the next, not to have to repeat the same disappointing news of the steady decline in the number of industrial sites given statutory protection under the terms of French law on historic monuments. But in 2013 only thirteen industrial monuments were thus protected and only one of these, the former saltworks at Dieuze, in the Moselle department, was 'classé', the higher level of historic monument protection in France. The qualities and historic interest of most of the sites protected in 2013 had already been recognised for many years and the protective measures were only belated recognition of these heritage values. Amongst the sites protected, mention may be made here of

- The copper works at Cerdon (Ain); towards the end of the nineteenth century, this factory produced several reeling machines and copper basins exported to Japan for the Tomioka silk mill, recently inscribed on UNESCO's list of world heritage
- The Braquenié tapestry factory at Aubusson (Creuse)
- The former Ecurey foundries (Meuse)
- The boat lift at Fontinettes d'Arques (Pas-de-Calais), including its machinery, its ancillary buildings, its canal and lock
- The Gantois factory at Saint-Dié; this Art Deco building associates monumentality and classicism; its stained glass windows are also protected.

World Heritage

At the 39th session of World heritage committee at Berlin (Germany) in July 2015, two new French sites have been inscribed on the UNESCO World Heritage List : Champagne Hillsides, Houses and Cellars (including the Saint-Nicaise hill at Rheims and the Champagne Avenue in the town of Epernay) and Climats, terroirs of Burgundy (associated with the cities of Dijon and Beaune).

CILAC's actions

Since the Taiwan congress, the activities of the CILAC have been very much oriented towards the preparation of the sixteenth TICCIEH congress to be held in the Lille region in September 2015. Although times are financially difficult for all associations and voluntary organisations, the CILAC has still managed to maintain its rhythm of two issues per year of its review, *L'Archéologie industrielle en France*. For its issue (n° 65), the review is going to change its title to *Patrimoine industriel, archéologie, technique, mémoire*, and will have a new layout design.

The preparation of the TICCIH conference, under the direction of Florence Hachez-Leroy, has mobilised a CILAC team in France, with the active help of Massimo Preite, of the University of Florence, a TICCIH board member.

In October 2014, the members of the association, and many others, were deeply upset by the sudden death of Louis Bergeron. Louis's disappearance is a great loss for all the friends and defenders of the industrial heritage, for those who had the good fortune to follow his seminars and for all those who worked with him over the years.

A selection of industrial heritage conservation and conversion projects

- Tarare (Rhône), the Turdine dye-works.



© Ja gonnard / vurpas architectes

At the entrance to Tarare, near Lyon, an impressive building bears witness to the industrial past of this city. The factory, constructed over a river, accommodated the dye-works specialised in ennobling processes. It is a masonry building, erected in 1905 with an extension in reinforced concrete after a fire in 1947. In 2006 this three-storey building, 200 metres long and developing 6,500 square metres in all, was converted by the Lyon architectural agency Vurpas to house a brasserie, a restaurant with concert facilities, offices and headquarters for the local chamber of commerce.

- Dunkirk (Nord), the sugar hall. © jf leca cud



The warehouse buildings, designed in 1897 by the architects Jules Denfer and Paul Friesé, were originally intended for storing foodstuffs and sugar in particular. It is a brick building 60 metres long and 40 metres deep. Abandoned in 1990, it has been converted to accommodate a large range of public uses, including a library, a documentation centre, a learning centre and the offices of several local authority administrations. This conversion project is emblematic of the way the port of Dunkirk is changing today.

- Paris, the Freyssinet hall © Wilmotte & Associés





This hall, also known as the SERNAM hall (Sernam was a freight company owned by French rail), was designed in 1927 by the engineer Eugène Freyssinet as a warehouse for goods arriving in Paris by rail. Situated close to the Austerlitz station, it was threatened with demolition in the development plans for this neighbourhood in the thirteenth arrondissement. But it was finally saved and given statutory protection and conversion work is presently underway, following the project of the architectural firm of Jean-Michel Wilmotte. A partnership formed between the City of Paris, the Caisse des Dépôts et Consignations (a public investment bank) and Xavier Niel, a well-known French industrialist active in the field of telecommunications, has developed a project which keeps the original hall as a shelter for use as a startup incubator: 30,000 square metres are supposedly to house up to a thousand startups.

Several other operations in progress in the Seine-Saint-Denis department to the north of Paris may also be mentioned. Since the conversion of the former flour milling complex at Pantin, transformed into back offices for the BNP bank's Securities Services, and drawing 3,200 employees every day to this suburb immediately to the north-east of Paris, several other projects have come to fruition. The Pantin flour mill operation indeed seems to have been an encouragement for other Paris-based businesses to look to the former industrial suburbs for new accommodation.

- Pantin (Seine-Saint-Denis): The former Magasins généraux, general bonded warehouse. © Jung Architectures



France's leading advertising agency, BETC, has chosen to rehabilitate the former general warehouse complex, in order to install its headquarters and their 750 employees. Situated at Pantin by the side of the Ourcq canal, this five-storey edifice, 150 metres long, comprising two twin buildings, was constructed in 1930 as a bonded warehouse. Closed in 2000, the site was first purchased from the city of Paris by the municipality of Pantin in 2004. The financing of the operation was delicate: the site is now the property of the Klepierre firm, with Nexity as promoter and developer and with BETC as tenant. The conversion project is currently underway, to the designs of the architect Frédéric Jung. In 2016, the first 1,500 square metres of ground floor commercial premises should be made available. The offices in the floors above will enjoy interior patios with landscaped roof gardens above. The top floor will comprise a large exhibition space open to the public.

- The SERNAM hall at Pantin

This reinforced concrete hall, built between 1947 and 1949 to the designs of the engineer Bernard Laffaille and the architect Paul Peirani, measures 324 metres by 108 metres, a total surface of 35,000 square metres divided into three naves. The Saint-Gobain group has chosen this building for the creation of an immense commercial centre devoted to buildings materials.

Also present in the suburb of Pantin, Hermès and Chanel are enlarging their workshops. Thaddaeus Ropac, a world-renowned Austrian specialist in contemporary art, has set up shop in a former boiler works dating from the beginning of the twentieth century (Buttazzoni and associates, architects), and which has attracted 40,000 visitors since its opening in 2012. The industrial heritage of this Paris suburb, with a difficult reputation, is gradually being taken over by prestigious businesses.

Demolitions and threats of demolition

Several emblematic disappearances are to be deplored. The 'giant mill' of the Dollfus Mieg Company at Mulhouse, built in 1812, was demolished in 2014, a heritage scandal (see G.

Dufresne, From Disaster to reconversion: Dollfus-Mieg and Company (DMC) at Mulhouse (Haut-Rhin), France, *TICCIH Bulletin* n° 68-2).

- The Fontainebleau market hall (Seine-et-Marne), built between 1939 and 1941 by the engineer Nicolas Esquillan, was celebrated for the elegant thinness of its roof structure, the delicate design of its Saint-Gobain glass blocks and its mushroom shaped curves. Despite the opposition of several leading architectural figures, this market hall was demolished in September 2014.

- The headquarters building of the Sanofi-Adventis firm at Reuil-Malmaison (Hauts-de-Seine) was built in 1968 for Sandoz and has been abandoned since 2010.

- Although the threats of imminent demolition of the Famar factory at Orléans (Loiret) seem to have been removed, at least for the moment, thanks to an international petition, the fate of this building remains uncertain. Situated on the left bank of the Loire, this pharmaceutical factory built in concrete and glass, and extremely modern for its time, was designed at the beginning of the 1950s by the Swiss architect Jean Tschumi for the Sandoz firm.

- At Boulogne-Billancourt, one of the last surviving workshop buildings constructed on the site of the world-famous Renault site, the so-called '57-Métal' building, designed by the architect Claude Vasconi at the beginning of the 1980s, is under threat today. Considered by some as a masterpiece of industrial architecture, the idea that it might be the last industrial vestige of the Renault site seems paradoxical to many.

New site museums

- The Milles camp, near Aix-en-Provence (Bouches-du-Rhône). In 1939, a detention camp, used for exiled artists of German origin, was created inside this former brick and tile factory near Aix-en-Provence. The camp was subsequently used for Jews arrested and deported from Marseille. In September 2012, this major site of internment and deportation, still intact after the end of the war, was opened as a museum, designed by the Atelier Novembre architectural team. It is an important historical museum, focusing on education and culture, but without neglecting the site's industrial past (www.campdesmilles.org)



©Fondation du Camp des Milles - Mémoire et Education.

- The Bohin pin and needle working museum at Saint-Sulpice-sur-Risle (Orne), a factory museum in the countryside.



The Bohin pin and needle working museum © J.M. Mandon

Bohin is France's last manufacturer of pins and knitting needles and is a rare example of a 'heritage factory' which has managed to survive, still using the machines designed by the creators of the factory at the end of the nineteenth century. The products of the factory are of high quality and are exported throughout the world. The originality of this site is that it is a working factory that has been opened to visitors after the complete renovation of the buildings and the creation of an exceptional museographical itinerary (G. Dufresne, *The Bohin pin and needle working museum*, *TICCIH Bulletin*, n° 67). Visitors can follow the different stages in the production of pins and needles with the help of extremely innovative museum devices. In real life, they can also see the production of pins and needles, talk with the factory's employees and also learn about the region's industrial history (www.lamanufacturebohin.fr)

- The Musée cévenol at Saint-Jean-du-Gard (Gard). This project has been in the planning stages for over fifteen years but, today, is at last becoming reality. With the support of various local authorities (Grand Alès, Saint-Jean-du-Gard municipality), the project conceived by the Vurpas agency from Lyon has just begun to be implemented. The former 'Maison Rouge' silk throwing factory has been entirely restored. Its surrounding park has been restored to its 1850 state. In all, the museum will comprise 2,500 square metres devoted to the history of the Cévennes silk producing industry and to the social history.



Musée Cévenol : prospective drawing : VURPAS ARCHITECTES

- The Morlaix tobacco manufactory (Finistère).

This factory, built in the 1730s, will shortly accommodate a branch of the Rennes 'Espaces des Sciences', a centre of scientific, technical and industrial culture.

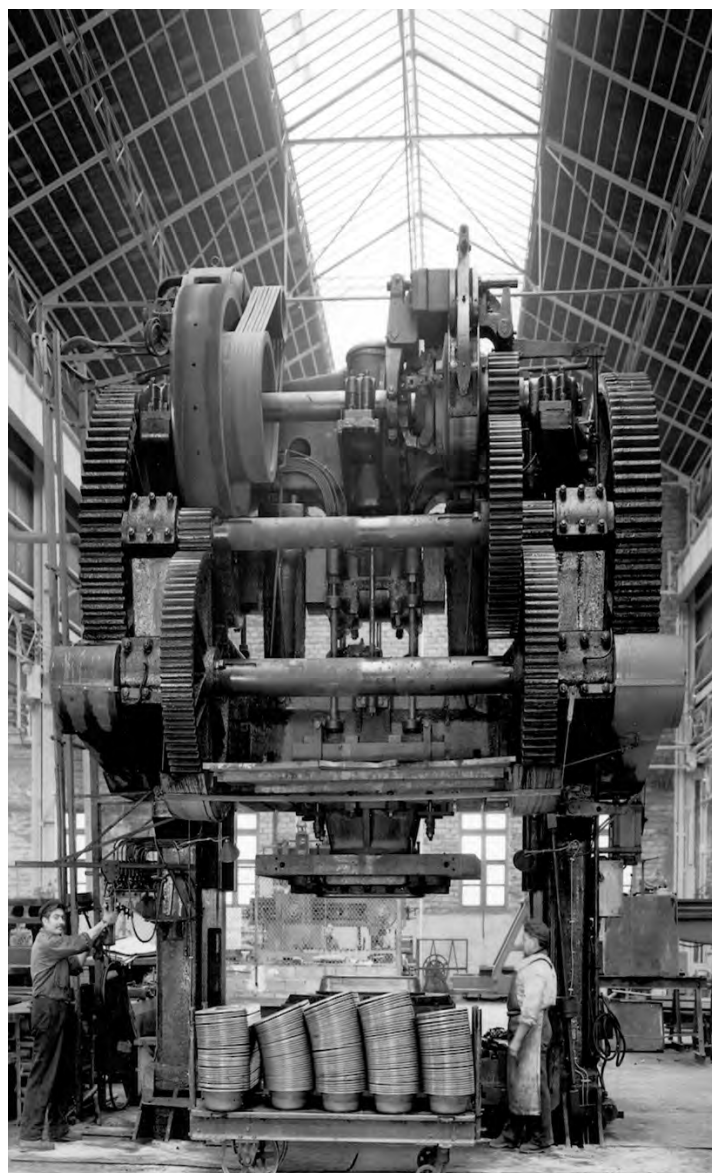


The Morlaix tobacco manufactory (Finistère). © Louis André

This new space will participate in the overall regeneration of this remarkable eighteenth-century state manufactory. The historical and heritage interest of the site are the leading values behind this ambitious project. The future CCSTI aims to 'share the pleasures of science and discovery, and offer answers to the question that ordinary people ask about scientific issues'. The centre is due to open in 2019 and will occupy 2,800 square metres inside the former tobacco manufactory, comprising three sequences: an exploratory space

where visitors will be able to carry out their own scientific experiments, an architectural workshop where the operation of the manufactory during the eighteenth, nineteenth and twentieth centuries will be explained and an 'innovation' gallery focused on the latest scientific issues and scientific enterprises.

- A machine conservatory is in preparation at Dommartin-le-Franc (Haute-Marne) in a former foundry close to the Metallurgic Park opened in 2011. The Association pour la sauvegarde et la promotion du patrimoine métallurgique haut-marnais (ASPM) at the origins of this initiative, has just acquired an enormous Ronot press, of 2,000 tonnes power, purchased from a Saint-Dizier business and due to be transferred to this planned conservatory.



Ronot press (1931), the last example in France

- The Puits Couriot Mining Museum and Park at Saint-Étienne (Loire)
After seven years' work, the mining museum and park now has a new, one-thousand square-metre exhibition space, officially opened in December 2014. This space allows for the presentation of several themes, such as the figure of the miner, six centuries of mining

in the Saint-Étienne basin, and the history of the Couriot pit itself. This development gives the museum a new dimension and contributes to its mission of associating the history of the mine with its territory. www.musee-mine.saint-etienne.fr



© Florian Kleinfenn / Ville de Saint-Etienne.

Some educational and training programmes

Université Paris 1 Panthéon-Sorbonne

A master's degree course is offered in 'history of sciences, history of techniques' at the Université Paris 1 (MH2ST). The MH2ST offers three branches: research, professional training (initial and continuous training) and international training (master Erasmus Mundus TPTI)

Université de Haute-Alsace (Mulhouse)

Master's degree course in 'Management and interpretation of the heritage' and a course in archive management (MECADO) with a specific component on industrial archaeology, understanding and interpreting industrial landscapes. Master 2 'history of economies and industrial societies in Europe' (HESIE), course on 'From business to the heritage'.

FORCOPAR project (FORMATION Continue à distance au PATrimoine industriel et à ses Reconversions). This is an e-learning project in the realm of industrial heritage, set up in

the context of the Leonard da Vinci European programme for Transfer and Innovation. The project consortium brings together several countries including Belgium, Italy, Portugal, France and Romania.

Université d'Artois at Arras

Master's degree course in heritage understanding and interpretation. The course, of sixteen weeks' duration in all, involves a twelve-week work experience.

Université de Rennes, licence 3, course on the industrial heritage as an option in the art history degree.

ENSA Normandie (Architectural school of Normandy), Rouen/Darnétal (Haute-Normandie)

Specialised master's degree course in building rehabilitation (Diagnostic et Réhabilitation des architectures du quotidien). Theoretical and thematical and course of initiation to industrial archaeology.

ENSA Paris-Belleville (Architectural school of Paris-Belleville) DSA (Diplôme supérieur d'architecture), course on architecture and heritage, including the industrial heritage.

Ecole du Louvre (Paris)

Course on the technical and industrial heritage as an option in the the school's general diploma, Preparation for the competitive exam for heritage curators (speciality scientific, technical and natural heritage).

Conferences and study days

- "Les 'manus' après les tabacs, 30 ans de reconversions de lieux industriels" Tobacco manufactories after tobacco, thirty years of converting industrial buildings, international conference at Nantes, 13 to 15 November 2013.
- « De la friche au patrimoine : reconvertir le bâti industriel », From brownfield sites to heritage, converting industrial buildings, study day organised by Patrimoine Rhônalpin, 27 January 2014.
- « La fonte d'art en France et dans le monde », Cast-iron art work, international conference at Saint-Dizier (Haute-Marne) 25-26 September 2014. Proceedings of the conference to be published in 2015.

Significant publications since 2012

ACTES DU COLLOQUE, *Patrimoine industriel des petites villes, 19 et 20 octobre 2012*, Les Amis du Vieux-Guéigny, 2013, 216 p.

ALEXANDRE, Alain, CROGUENNEC, Michel, *Histoire d'usines, 180 ans de vie industrielle dans l'agglomération rouennaise*, Editions L'Echo des vagues, Rouen, 2013, 304 p.

BEL, Dominique, *L'épopée industrielle de l'ocre, Vaucluse et pays d'Apt, du XVIIIe siècle à aujourd'hui*, ASPPIV, cahier n°56/57, 2013, 176 p.

BELHOSTE, Jean-François, SMITH, Paul, photographies de Pierre-Olivier Deschamps, *Architectures et paysages industriels, l'invention d'un patrimoine*, La Martinière, 2012, 271 p.

CALISTE, Lise, *Patrimoine industriel de l'Hérault*, col. Images du patrimoine n°287, Editions Lieux-dits, 2014, 112 p.

CREMNITZER, Jean- Bernard, (sous la dir.), *Trans-Form, l'enseignement du projet d'architecture de reconversion/transformation/réhabilitation au sein de l'ENSA Normandie*, Publication Collection Les cahiers de l'ENSA Normandie, n°6 – Editions Point de vues, Rouen, 2014.

DOREL-FERRÉ, Gracia, dir., *Patrimoine textiles de par le monde, en Champagne-Ardenne et ailleurs*, cahier de l'APIC n°9, CRDP de Champagne-Ardenne, 2013, 192 p.

DUPONT, Stéphanie, *Patrimoine industriel du Calvados, Caen et son arrondissement*, Images du patrimoine, n°27 3, Editions Lieux-Dits, 2013, 112 p.

FAVEREAUX, Raphaël, *Le pays de Monbéliard et son patrimoine industriel*, col. Images du patrimoine n°286, Editions Lieux-dits, 2014, 128 p.

LAURENT, Agnès, éditeur, *L'épopée du Gaz de Lacq*, diffusion Editions Cairn, 2013, 192 p.

LE ROUX, Thomas, *Les paris de l'industrie 1750-1920: Paris au risque de l'industrie*, Créaphis, 2013, 155 p.

LECHERBONNIER, Yannick, *Patrimoine industriel du Calvados, Pays d'Auge*, Images du patrimoine, n°272, Editions Lieux-Dits, 2013, 112 p.

PIERROT, Nicolas, *Champagne-sur-Seine. Et l'usine créa la ville...*, Parcours du patrimoine n°370, Région Île-de-France, 2012, 88 p.

RÉAL, Emmanuelle, *Reconversions. L'architecture industrielle réinventée*, Images du patrimoine n° 289, région Haute-Normandie, 2013, 304 p.