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Passing of Louis Bergeron (1929-2014)



Dear TICCIH Members,

It is with great sadness that I inform you of the death of our esteemed colleague and leader Professor Louis Bergeron on the evening of October 9, following one month of illness. His influence and prolific work in defining the field of Industrial Heritage is known not only in France, but also around the world. Among his many achievements was his leadership of TICCIH as President during the critical period from 1990-2000. A more thorough statement about his life and career will be prepared for publication in due time.

Sincerely,
Patrick Martin

Opinion

Adaptive re-use of the cloud

James Douet

The *cloud* is among the most misleading metaphors that marketing has ever created. There is nothing airy or intangible about the remote service centers that hold our photos, shared documents, emails and digital music. The insatiable thirst for storing digital information has created a major heavy industry, its centres in many ways not much different from the great warehouses of the age of manufacturing.

Indeed, some of them *are* great warehouses from the age of manufacturing, their traditional qualities of massive construction and spacious interiors attracting the new barons of the digital industry.

The R.R Donnelley Printing Plant in Chicago used to house the heavy presses for turning out Yellow Pages and Sears, Roebuck catalogues. The 1912-29 building is a fireproof design of poured concrete columns and an open-shell concrete floor. Since the last major account closed it has been converted into a 'carrier hotel' or data center, owned by Digital Realty Trust, the first and largest in the United States. Meanwhile, out in the stable lands of Phoenix, Arizona, a collocation centre, providing online services of medium size to clients in nearby California, has recycled an old bottled water factory.

Opinion

Among the factors that determine where a data center is located are the availability of land or tax incentives and impunity to seismic activity, but, above all, its operation requires direct access to large amounts of cheap electricity and a cold and dry climate that facilitates the task of keeping the temperature inside under control, with thousands of revolving disks needing to be refrigerated.

A sign of the times came in 2009 when Google bought the redundant Summa paper mill from Finnish company Stora Enso and cleared out the horizontal paper machines to make room for a data center. It showed a change of attitude by tech companies willing to give a more visible face to data storage for their customers. Water pumped from the Finland Bay helps to keep the processors and hard disks cool. The symbolism of gigantic rolls of newsprint being replaced with a digital media for transmitting information has been lost on no-one.

Even the issue of industrial contamination has its symmetry, the chemical pulp and solvents for which the paper industry was troubled being replaced by the waste heat pollution from the processors.



Chicago's Lakeside Press Building was built between 1912 and 1929 and is now known as the Lakeside Technology Center. This handsome daylight factory with Art Deco decoration was designed by Howard Van Doren Shaw.

Other storage plants make a virtue out of proximity to data. The New York Telephone Company Building at the foot of the Brooklyn Bridge is among the most visible, the 32-floor former telephone exchange becoming a facility to store Wall Street deals. Deeper into Manhattan the 1928 skyscraper Number 60 Hudson Street connects over 300 different data networks. Proximity to data exchange centres is sought by trading firms, to capitalize on infinitesimal advantages in time which can be gained by minimising the distance that information has to travel down the cables.

The site which most betrays the idea of the fluffy, white insubstantiality of remote storage is Radix Cloud in the Swiss canton of Uri. Nowhere better combines anonymity with earthquake impunity and high security than this recycled former Cold War bunker, abandoned by the Swiss army in 2007. Maps on the wall apparently still show Berlin divided in two halves. Other traces of its past include a Faraday cage for making secure calls without risk of interception. But that is another issue entirely which the giants of the data industry are being forced to face. Perhaps a Snowden cage is what is needed.



The former Stora Enso pulp mill was empty for several months before being bought for 40m€ by Google, who wanted the cold water of the Finland Bay for refrigeration. The Alvar Aalto-designed machine hall will be restored under the conversion.



Bornholm granite quarry, Denmark. TICCIH's new thematic report on quarries is discussed in Teruel, Spain, at the end of October. It will help guide ICOMOS in assessing these complex landscapes of sometimes competing historic and natural values. The meeting also stages the launch of the new European Quarries Network.

<http://www.quarrylandscapes.teruel.es/>

Report

New Silesian Museum

Dr Anna Sulimowska-Ociepka
Faculty of Architecture, Silesian University of Technology, Poland

Katowice is the capital of the Upper Silesian conglomeration - the largest industrial concentration in Poland. Industrial development began here nearly 200 years ago, with the discovery of shallow coal deposits, and the first coal mines and steel mills started to operate in the first half of the 19th century. In the 1990s the country underwent a political and economic transformation and a lot of outdated and underfunded industrial complexes collapsed. Those changes also resulted in the disintegration of Silesia's industrial heritage. It was easier and cheaper to demolish historic industrial buildings than introduce them to a new function.

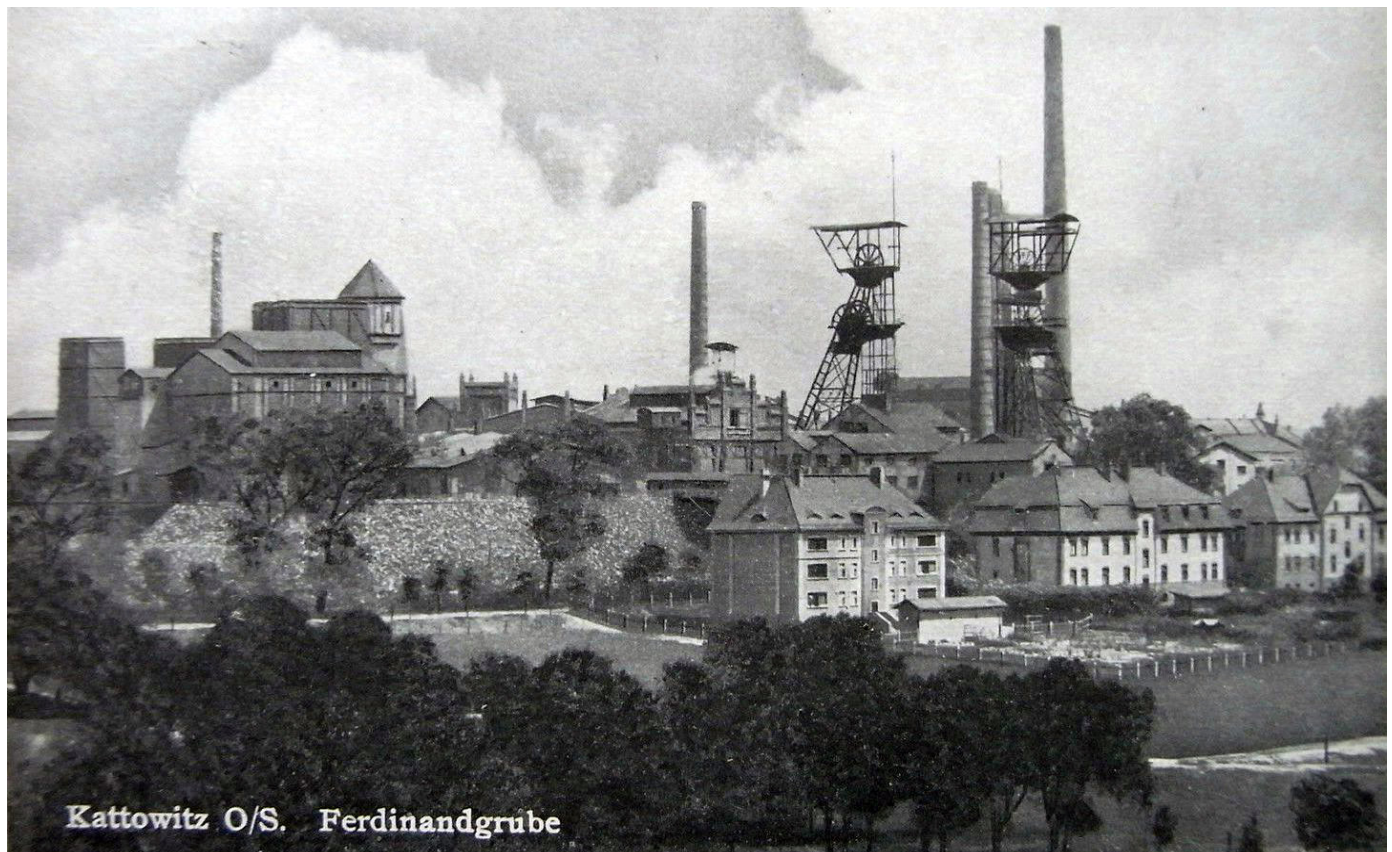
This process of destruction slowed after Poland entered the European Union in 2004. Due to new funding opportunities and a change in social awareness of the value of industrial heritage, a lot of new investments in post-industrial areas were made.

One of the latest realisations is a new building of the Silesian Museum <http://www.muzeumslaskie.pl/en/index.php>, erected on the area of the former Katowice Coal Mine in downtown Katowice.

The mine operated continuously from 1823 to 1999, regardless of the changing economic and political situation. After its closure the majority of surface structures were demolished. Only a few, representing the greatest historical value, were preserved but the degraded post-industrial landscape became an obstacle on the way to the harmonious development of the city.

The story of the construction of the new museum building goes back to the 1980s. But it wasn't until 2005 that the investment works could start. In that year the area of the former coal mine was transferred to the city and in 2006 the Silesian Voivodship's Management approved the Regional Operation Program for the years 2007-2013.

The first step of the investment works was the announcement of an international architectural competition. The results were announced in June 2007 and the winner was the Austrian design studio Riegler Riewe Architekten of Graz. Construction itself began in 2011, after collecting all the documents, carrying out all the necessary tenders as well as preparing the land and obtaining the European Commission and the Ministry of Culture and National Heritage's final decision, concerning the subsidies. Within two years of construction an inconspicuous box, costing approximately 82 million Euros, had appeared. However, its genuine value, as well as a surprise, are hidden under the ground's surface where visitors may find a reference to the place's mining traditions as well as a respect for the mine's historic buildings.



The Katowice coal mine at the beginning of the XXth century.

Report

Above the surface there appears merely six architecturally neutral glass boxes, which illuminate a 6,000 m² exhibition space. The compact solid, measuring 212 m by 55 m, has been hidden 14 m under the ground. It creates a two-story, open exhibition space linked to suspended ramps, and presenting both pre-war and contemporary art as well as an exhibition on the production of weaponry materials by the Silesian military industry during the 19th and 20th centuries.

In the underground part of the museum you will also find conference and educational rooms, a library, laboratories, warehouse and technical spaces. The historic building of the engine house has been adapted into a restaurant, and the clothing warehouse has been transformed into a Polish Center of Stage Design. After adding an elevator, the symbol of the mine, the shaft tower was transformed into a viewing platform. Owing to such an architectural solution, historic buildings situated deep in the industrial area have not been covered by the new structure, even though the area of the total building is 25,000 m².

The functional and spatial solution resulted in a number of difficulties in performing deep excavations in very complicated geotechnical conditions, which had been caused by shallow mining exploitation and the immediate neighbourhood of historic buildings. It was also necessary to deepen and strengthen the foundations of the historic buildings. The problem was solved by active monitoring of the geotechnical situation and by verifying the design assumptions in relation to variable ground conditions.

The entire investment constitutes the first element of a new culture-based strategy in creating a so-called 'Area of Culture'. Other facilities including the Concert Hall of the National Symphony Orchestra and the International Conference Centre are in the final stages of construction and will play an important part in the new city landscape.

With the construction of the new Silesian Museum, a degraded and isolated post-industrial area has been reincluded in the urban structure of the city. Both the alteration of the place's image and an increase in the attractiveness of the grounds surrounding the investment are of considerable importance for the development of a modern and creative city.



Aerial view of the Area of Culture with the surface building of the former mine.



The extraordinary contrast of the new glass solids of the Silesian Museum juxtaposed with the brick buildings of the mine, and the metal winding tower with the new lift up to the top.

Worldwide



The Tour de Troit annual city bicycle ride gathers in front of the empty Michigan Central Station

(Photo Credit: Fishtoes2000)

Notes from Detroit: can the Packard Plant rise again?

Miriam Kelly

Detroit has become a symbol of post-industrial distress. Ruin voyeurs photograph scenes of overwhelming decay and the uncanny incursion of nature into spaces once dedicated to the man-made. But just as they overlook the underlying sadness of dereliction, so they ignore the vibrancy of an active city with a population working to translate loss into opportunity.

When Le Corbusier put forward utopian plans for a linear industrial city, he was inspired by Detroit. The Motor City of the 1930s functioned as an interconnected locus of production within which industrial plants, worker housing, distribution networks, commerce and civic activities were organised. The collapse of the motor industry, a history of racial division, the abandonment of the city's historic core, rapid suburbanization and the erosion of the tax base have burdened Detroit with a metropolitan landscape poorly adapted to the innovation it desperately needs. With some forty square miles of vacant plots and one third of buildings abandoned, space is Detroit's greatest liability and its greatest asset.

A key proposal in the Detroit Future City Plan (published in January 2013) is a twenty-year framework for consolidating the redundant land of Motor City into a "canvas of green". The formalisation of a new connective landscape is an affordable

response to rationalising the city's infrastructure, redefining neighbourhoods, remediating industrial contamination and producing food. Although very different in character to the industrial city system of the 1930s metropolis, it could provide a new productive network for sustainable transformation.

It is hard to understand why the Motor City's extraordinary industrial legacy is not central to the debate about its future. As the concept of Landscape Urbanism gains traction, the regeneration potential of the many abandoned industrial sites is only peripherally discussed. At the same time, the growing anti-blight movement supports communities in diffusing the host of social problems associated with abandoned buildings by demolishing them. Detroit's industrial heritage is of international importance. A comprehensive assessment of significance and a proper safeguarding strategy are urgently needed.

In the absence of top-down initiatives, private enterprise and charitable foundations are driving change. Over the last year, Detroit has been the focus of an unlikely land rush as investors from around the world scramble to buy vacant properties in a bottomed-out market. The recent purchase in a tax foreclosure auction of the Packard Automotive Plant by Spanish 'urban entrepreneur' Fernando Palazuelo has caught the city's attention. The 3.5 million square-foot Packard Plant built by Albert Kahn in 1903 has gained notoriety as the largest abandoned industrial complex in the world. The first of the modern steel, glass and concrete factories to be built in America, the Packard Plant pioneered the use of reinforced concrete in industrial construction and is of international heritage significance.

Worldwide



The Packard Automotive Plant in the 1930s (left) and today (right)



Packard Automotive Plant Interior

(Photo Credit: Miriam Kelly)

Covering a campus of 40 acres, incorporating 47 buildings and stretching for over a kilometer along Concord Street, the site has been extensively vandalised. Frequent fires and the repeated theft of metal for scrap have caused sections of the structure to collapse. Even more shocking is the distress of the community immediately adjacent. Once neat plots of workers' houses have overgrown and merged into a meadow. The school is in ruins and roads are barely passable with pot holes and refuse. Some houses are still occupied, most are derelict and many missing altogether. Living in the shadow of Packard's shell is a grim business.

Detroit has witnessed a few miracles of redevelopment in recent years. The Westin Book Cadillac, Double Tree Fort Shelby and the Broderick Tower all found new life after decades of abandonment. However, unlike Packard, these projects are in Detroit's busy downtown, meeting a market demand for hotel or residential. The Packard site off East Grand Boulevard near Mount Elliott remains isolated. The Detroit Future City Plan envisions that while the northern edge of the plant near highway I-94 might find new industrial use, the majority of the factory

site and adjacent neighbourhood would be replaced by green belt, either for farming or reforestation. This is at odds with the new owner's aim to restore the historic plant, piece by piece, for commercial, residential, leisure and light industrial use over a 10-15 year period at an estimated cost of \$350 million.

Visiting the Packard Plant, its sheer scale, extent of decay and the distress of the neighbourhood make it hard to imagine meaningful regeneration. Many buildings are in a critical state of disrepair, with parts of the complex unused since the 1950s. The site is choked with refuse, the ground contaminated and infrastructure crippled or obsolete. Having purchased the plant for \$405,000 in December 2013, Packard's new owner has paid off the outstanding taxes, secured the site and is undertaking a clean-up operation on a grand scale. By employing those who would otherwise continue to strip the buildings for scrap, he hopes to provide employment while protecting his property. Having converted over a hundred abandoned buildings in Spain and Peru, his regeneration model is to work through the site section by section, starting with the creation of a home and office complex for himself and his team.

Worldwide

Falkland Islands

New historic dockyard museum, Stanley

The Falkland Islands have a long history as a safe haven for ships damaged when attempting to round Cape Horn. Ships in difficulties ran before the prevailing westerlies to find quiet water in Stanley harbour where their future could be determined – repair or write-off. In the days of wooden sailing ships there was a thriving ship repair business there but iron and later steel ships, and the arrival of steam power, reduced the demand and the nature of repairs when they were needed were then generally beyond the facilities available locally.

But over the years Stanley amassed a significant collection of historic vessels of which the ss Great Britain was the best known. She had been built to the designs of Isambard Kingdom Brunel (1806-1859) in the 1840s as an iron screw-propelled steam ship – the largest ship in the world at the time of her launch in Bristol – but later converted into a sailing ship. Beached in 1886 in the Falklands after damage off Cape Horn she was used for many years as a storage hulk before being rescued and brought back to Bristol in 1970 where she is preserved in the dry dock where she was built. The mizzen mast of the Great Britain is still preserved on the waterfront in Stanley.



Barque Lady Elizabeth beached in Stanley harbour.



The group of historic dockyard buildings in Stanley that form the new museum.

Today, most of the wooden hulks are too deteriorated for conservation although pieces taken from abandoned ships form an important part of the museum collections held in Stanley. Only the Lady Elizabeth, an iron barque built in Sunderland and beached in the Falklands in 1913, survives as a substantive vessel – but with an uncertain future.

The history and natural history of the Falkland Islands has been the concern for many years of the Falkland Islands Museum and National Trust whose new museum was formally opened by Neil Cossons on Saturday 6 September. He had been asked in December 1985 to report on a museum for the Falklands and his recommendations, presented in Spring 1986, were for a museum to occupy a group of historic buildings – the historic dockyard – among the oldest in Stanley and occupying a central site on the waterfront. Those proposals have been met to the letter and, 28 years after the original report, the Falkland Islands now have a new museum covering the social, economic and maritime history of the islands, its natural environment and wildlife. In addition, the role of the Falklands as a base for Antarctic exploration and research is reflected in the preservation of one of the huts from the Peninsular, last used in the 1950s and brought back intact and with it its furnishings and fittings still in-situ. Two of the team who overwintered there in 1957 – Richard Foster and Ray McGowan, both well into their eighties – attended the museum opening.

With cruise liner traffic increasing and access by air to the islands improving, the museum is seen as an important part of the future economy of the Falklands. Regular flights from Britain and Chile for the first time make them accessible to the wider world.



Richard Foster examines the Reclus hut that he had last seen in 1957.

Worldwide

Sweden

The Oil Island at Ängelsberg - the world's oldest oil refinery

Lars M. Larsson

Ängelsberg's Oil Factory on the Oil Island is "...unique very probably throughout the world, and commemorates the rise of technology that created a new era: the era of oil." It was founded in 1875 but the remaining equipment corresponds to what was used in the U.S. refineries in the 1860s! So it is most interesting to oil and industry historians and researchers.

Its product was originally situated in the middle of the market for lighting and lubrication oils. Due to the explosion risk it was placed on an island. The factory was a small scale refinery with a nominal production capacity of 1 000 bbl, later increased to 1 500 bbl (~200 tons).

In 1928 the Oil Island was acquired by the Johnson Group in Sweden and the factory was restored. In 1990 it was handed over to the largest Swedish refinery, now Preem Ltd., that re-

stored the factory, economy buildings and the remaining residential house. In the years 2006 and 2011 a new restoration was carried through.

The owner of the Oil Island takes care of the maintenance. From 2007, however, the township of Fagersta has become leaseholder of the island and is responsible for repair and for the organization of visits including the ferry boat traffic. The Oil Island is also one of the sites of the Ecomuseum Bergslagen. The Swedish Industrial Monuments Association chose this as the Swedish 1999 Industrial Monument.

In the 19th century three houses for the workers and their families were erected. Today one of those – originally with four flats and with economy buildings - still exists. It is rented by the present voluntary care-takers Karin E. and Lars M. Larsson, son of the last managing director Werner Larsson. One flat is furnished as a workers dwelling museum.

During the summer, the ferry boat brings the visitors to the island from the ferry berth at the Ängelsberg railway station. For chartered visits during all seasons (except for periods of freeze-up and break-up of the ice) see www.fagersta.se (in Swedish).



Industrial Heritage Re-tooled: The TICCIIH guide to Industrial Heritage Conservation.

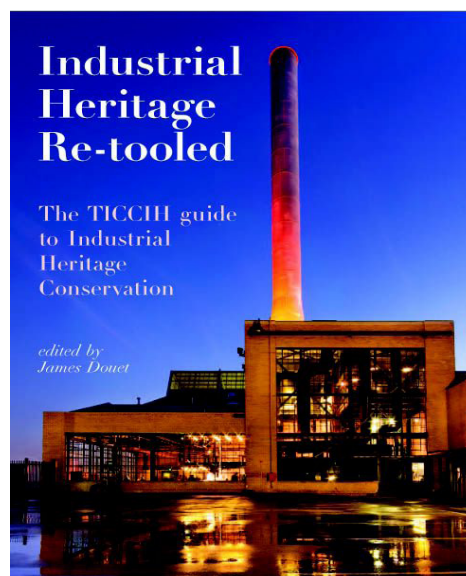
James Douet (ed.). Lancaster: Carnegie.

2012. 71 colour photos. pp. 244. £14.99.

ISBN 978-1-85936-218-1

The book lays out best practice across the range of issues facing industrial heritage, using illustrative sites from Finland to Sydney to Chile to illuminate the argument.

ORDER your copy from YPD books for worldwide mailing except for the USA (see USA link below). The price from YPD Book Distributor is 14.99 GBP plus shipping. TICCIIH members will receive a 10% discount voucher. If you are a current member of TICCIIH and do not know the discount please email us at ticciih@mtu.edu. If you join or renew now we will send you the discount code to get the 10% member discount. The TICCIIH Guide to Industrial Heritage Conservation is also available in the USA for \$24.00 USD plus \$5.00 shipping and handling for a total of \$29.00 (USD). This link is only for mailing addresses in the USA.



Worldwide

Spain

The landscape of the Minas de Río Tinto

**Eusebi Casanelles, Vicepresident
Patronat del Museu de la Colònia Vidal**

The open-pit metal mines in Río Tinto, called “cortas” in Spanish, have created a mining landscape, characterized by the terraces, that is the most impressive in Spain. The terraces shape whole mountains and excavations and penetrate deep into the earth. What makes the landscape unique is the huge territory shaped by the mines and the different red colors of the earth. A chromatic range can be seen which is in correlation to the mineral veins. They can be grey, yellow, lilac, white and red and the tone changes throughout the day depending on the sunlight.

The color of the river water must be added to this extraordinary landscape. Its red color is similar to the wine that gave the name to the region: Río Tinto (red river). The water is very acidic and bacteria live in it which is very extraordinary and unique. It is not only the transformed natural landscape which makes this area so special. Its historical and industrial heritage is immense and explains its long mining history.

The Río Tinto mines are the most ancient that have been exploited until the end of 20th century. The evidence of the oldest works date from the late fourth Millennium and the last mines were closed in 2004 (although there are proposals to re-start extraction). The most abundant ore was chalcopyrite, from which copper was extracted but silver, gold and others in smaller amounts such as lead and iron were produced too.

But exploitation on a large scale began in Roman times. Fifty Roman waterwheels have been documented, discovered in open-cast mines when they cut through the Roman galleries. Currently a nearly complete wheel is exhibited in the Museo Provincial de Huelva, along with to three halves of discs and some bronze axes. The Mining Museum of Río Tinto conserves a wooden shaft.

It was not until 1724 that the Swedish L. Wolters start a modern exploitation and brought to Spain some miners of his country. From 1783 to 1828 the mines become property of the Spanish State, but their exploitation was not profitable. The British Consortium “Río Tinto Company Limited” started an industrial exploitation to buy the ownership of the mines. The English opened new “Cortas” and reopened galleries which were already made in Roman times. Calcinations of ore were held outdoors, which caused a sulphurous smoke that produced a fog of SO₂, very damaging for the local population and the workers. This situation caused a major workers demonstration in 1888, which was put down by the Spanish army and caused more than a hundred deaths.

The company built a railway line between Río Tinto and Huelva (1873-1875) and a wharf which is still existing where ore was loaded to the ships for treatment elsewhere. The line is 1,165 m long and constitutes the most important cast iron construction of the area. The wharf was recently restored as well as 38 km of the railway line in the other side in the mining zone to promote tourism. The visitor can take it and see part of the extensive open mining works along the River Tinto as well as many remains of railway vehicles, among which different steam locomotives.



The best-known terrace is “Corta Atalaya” which has the shape of a large ellipse and is 1200 m long, 900 m wide and 350 m deep. It is said to be Europe’s largest hole.

Photo: Creative Commons

Worldwide

At the beginning of the 20th century, open work had severely affected the “Rio Tinto mines” village and in 1908, the year in which the Company employed 16,000 workers, it was virtually destroyed. The core of the population that was very spread over the territory moved to the village called “El Barrio”, which the company organized as a “company town”. There was a hierarchy of houses according to the social categories that existed in the company. Those for the workers had a common model of a single storey plant and 45 m2, which were built in different parts of the region. The company also built the “Barrio of Bellavista” with English-style houses of two or three storied homes with garden for the “staff”. In Bellavista a church, a social center, a sport field was built. Bellavista is a sort of oasis in an arid region. The ensemble was fenced off and the entrance was forbidden to Spanish workers.

English culture also influenced the area. Hospitals and schools were created but the two issues that had most impact were soccer, Rio Tinto was the first soccer team set up in Spain, and the first groups of Boy Scouts.

Currently the Rio Tinto Foundation has set up the Mining Museum and Railway in the old hospital in which mining history is explained. The Foundation aims to extend its activity in the territory with the vision of creating a large Mining Park, which currently includes visits to the Corta Atalaya, the interior of Alfredo Mine, the Roman necropolis, the Barrio Inglés and of course the railroad.



An artificial and deeply contaminated landscape created by copper ore extraction

TICCIH



THE INTERNATIONAL
COMMITTEE FOR THE
CONSERVATION OF THE
INDUSTRIAL HERITAGE

TICCIH Congress XIV

TICCIH Congress XIV LILLE-REGION 2015: A city-wide promotion of the industrial heritage: Elbeuf-sur-Seine (Seine-Maritime)

The third report from France in the run-up to TICCIH's XVI Congress in Lille next September presents the story of the Normandy textile town Elbeuf-sur-Seine. Elbeuf has houses and manufactories from throughout the centuries of textile production. In recent years there has been a big effort to profit from this inheritance to help the town survive the 'delocalization' of textile production. This report shows how it was done.

Geneviève Dufresne
English translation by Paul Smith

Situated on the banks of the river Seine, not far from Rouen, the city of Elbeuf-sur-Seine is famous for its ancient cloth industry, and is celebrated today for its exemplary preservation and interpretation of the rich industrial heritage which it has been bequeathed.

The beginnings of a wool industry at Elbeuf are recorded at the beginning of the 16th century. During the reign of Louis XIV, Colbert created the Royal Cloth Manufactory at Elbeuf, which, by the end of the seventeenth century, employed 42 master artisans and some 8,000 people in the city itself or the country around about. During the 18th century production was reorganised, spinning being carried out in the countryside whilst the weaving and finishing processes were concentrated in the city. By this time, the Royal Manufactory gave employment to some 20,000 workers.

From the 1830s on, with the arrival of steam power, a new generation of large-scale textile mills emerged with their characteristic chimney stacks and brick construction. By 1842, the city and its area had about 120 industrial sites, employing 17,000 workers. Towards the end of the 19th century, following the Franco-Prussian war of 1870 and the occupation of Alsace by the new German Empire, about 2,000 inhabitants from Alsace took refuge in the Elbeuf region, and several major industrialists, including the Blin family, delocalised their mills to the Normandy city.

Textile production remained relatively stable up to the Second World War but, from the 1960s on, as in France's other textile centres, the factories closed down one after another. The city found itself in a dire economic and social decline with a huge stock of redundant industrial buildings.

In 1975 one of the last major firms, Blin & Blin, ceased production. Its factory buildings were emptied and the machines sold off in Italy. The local authority understood that there would be no new industrial activity for the site. Hoping to avoid the splitting up of the estate and the degradation of the buildings, it decided on a programme of conversion.

A public developer, the Office public d'aménagement et de construction (OPAC) of the Seine-Maritime department, in collaboration with the Elbeuf municipality, decided to adapt the buildings to accommodate 175 units of social housing, with the redesign of the public spaces between the buildings. The architectural agency of Bernard Reichen and Philippe Robert was selected for this operation, now considered as an early and interesting example of factory conversion in France. After this operation, many other textile buildings in the city were preserved anticipating similar reconversion operations. Several other architectural practices collaborated in these conversion operations, amongst which mention may be made of the Archidev agency (Cirque-Théâtre) and 'Fabrique des savoirs' and the Lemonnier agency (renovation of the Gasse & Canthelou factory).

Today, the city of Elbeuf has a population of about 17,500 inhabitants and, with its surrounding villages, is home to a total population of about 60,000 either side of the Seine. With its remarkable industrial heritage bearing witness to four centuries of cloth manufacture, the city has an exceptional historic centre with its timber-framed houses and numerous textile mills converted to new uses. Only a handful of them still accommodate economic activities. The renovation of the city and of its industrial sites is an operation which has been underway for forty years now, the result of a long and patient municipal policy seeking to give new life to quality industrial buildings which are today intelligently converted to new uses such as flats, offices, educational facilities, sports facilities, entertainment venues, museums, libraries and so forth. In most cases these re-use operations have been careful to preserve the qualities of the original buildings and to avoid altering them too drastically. The Elbeuf municipality has played a vital role here, in its efforts to preserve and renew the old industrial fabric of the city and has succeeded in mobilizing support from the department, the region, the French State and from the European Union, facilitating the conversion of many of the former industrial sites.

Alongside this significant industrial heritage, the city also has a disused railway station, now transformed into flats, an impressive Chamber of Commerce and Industry, an exceptional Circus building), and a former public bath house converted into a theatre. There is also, of course, stocks of working-class housing and some bourgeois dwellings constructed for the leading textile families. In 2010 a new museum called 'La Fabrique des Savoirs' was opened in a part of the Blin & Blin works. It represents a major cultural facility for the local authorities associated between Rouen, Elbeuf and Austreberthe.

This museum, which has acquired official recognition by the Ministry of Culture, brings together several different facilities: the museum itself with its permanent collection including an important selection of textile machines and other traces of the city's industrial past; a centre for heritage archives holding significant collections relating to the industrial history of the region,

TICCIH Congress XIV

in particular collections of photos and the collections of the city itself, the Blin & Blin archives and the Albert Blin archives; a centre for the interpretation of architecture and heritage; a centre for local youth activities; a job centre.

Elbeuf-sur-Seine is therefore a particularly interesting example of how a relatively small manufacturing city, suffering from the destructions of the Second World War and then from industrial decline during the 1960s and 1970s, has been able to use its exceptional industrial heritage as one of the city's motors of development today.

The local authorities have succeeded in having their efforts recognised and the city today enjoys the ministry of Culture's label as a 'Ville et Pays d'art et d'histoire', a city of art and history. This label recognises the city's industrial heritage but also other elements of its listed heritage including Gallo-Roman remains, churches and the natural heritage. During the summer months, lectures and guided tours are organised in order to give visitors and the local population a better appreciation of the city's industrial past. These initiatives are highly successful: many of the local inhabitants who are already aware of the city's textile associations, often through family traditions, are particularly interested in the guided tour.

These are some of the industrial sites in Elbeuf which have been repurposed for new uses to contribute to the life of the town.



Charles Houillier Manufactory. A courtyard of three timber-framed workshops from the second half of the 17th century, rebuilt and raised a floor during the 19th century, and transformed some time ago into housing.

Georges-Paul Petou or Clarenson manufactory. A vast timber-framed wool cloth manufactory dating from the 18th century. In about 1840, a 20 hp steam engine was installed at the corner with the brick chimney. The west part of the building has been converted into flats.



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Blin & Blin manufactory. An extensive and highly mechanised 1870 ensemble, comprising nine buildings arranged around internal courtyards and streets. It was the city's largest factory, with nine steam engines in 1896, 12,500 spindles and 450 weaving looms. In 1920 there were two thousand workers but it closed in 1975.

Gasse & Canthelou factory. Situated in the centre of the city, this factory specialised in weaving and finishing of woollen cloth. A 1842 timber-framed building with an 1882 metal framed addition and a new north-lit weaving shed added in 1918. The factory has been converted into housing and was awarded the Auguste Perret Prize in 2010.



Nivert & Bourgeois factory. Factory built in the 1860s for finishing processes, acquired after the First World War by the Nivert & Bourgeois firm. The surviving buildings are arranged in a U-shape around a courtyard and are only a third of the original ones. They offer office space today for some of the city's medical cabinets and law firms.

TICCIH Congress XIV



Fraenckel-Herzog factory. A large-scale integrated factory for the production of worsteds and woollens for fashion, built in the 1880s by the Fraenckel brothers but closed down at the end of the 1960s. Some is occupied today by various small businesses.

La Fabrique des Savoirs. The museum opened in a part of the former Blin & Blin manufactory.



Institut universitaire de technologie. The former Blin & Blin manufactory.

Modern industrial museums

Petr Kožíšek is the Head of the Road and Water Transport Department at the Národní technické muzeum, the National Technical Museum of the Czech Republic, and co-author of the inspiring Transport Exhibition which fills the full-height central exhibition hall.

The *Národní technické muzeum* is a classical European technical museum, with its Enlightenment foundations in the collecting of the professional engineering school of 1717, which three years ago opened new exhibitions and interpretations of its magnificent collections.

The NTM was founded in 1908 with the characteristic patriotic, democratic educational intentions of public museums of the time. It was an initiative primarily of professors of technical universities in Prague, but which included companies, industrial enterprises, banks and professional corporations, to display the technological and industrial development in Czech lands with respect to foreign countries, using collections of manufactured goods and machines.

The global narrative of the NTM is the practical application of science and technology, in fields as diverse as mining, metallurgy, astronomy, architecture, chemistry, time measurement, photography and film technology. For most people who visit the museum today, the section on the history of transportation has the starring role in the museum's home, an austere, rationalist building by Milan Babuška, finished in 1941, near the centre of the Czech capital. The historical scheme of transportation is presented in several separate strands dedicated to automobiles, motorcycles, cycling, aviation and boat transportation. The development of each field is presented in a chronological storyline from the beginning to the present, with shorter excursions showing the history of railway transportation and the development of fire-brigade technology in the Czech lands. The exhibition hopes to celebrate 'the famed and flawless machines that proved their worth', as well as 'the mistakes or blind alleys of technology'.

Three deep galleries which run all round the atrium, and are occupied by two-wheeled transport, cycles and motorbikes, while flying machines and a balloon are suspended from the sky/ceiling, and road vehicles and two large steam locomotives fill the ground floor.

The narrative is explained exclusively from authentic, perfectly restored specimens from the museum's unique collections, many of them exceptional in their own right and of course doubly so in the context in which they are displayed, of their technological contemporaries and family.

Petr Kožíšek who has curated the exhibition explains that you can find the first automobile driven in the area of the Czech Republic, the first automobile produced in the country, the first plane that flew in the first-ever long-distance flight in the history of Czech aviation, but also the oldest preserved automobile from Bugatti's Molsheim factory, or the oldest existing Audi in the world, as well as automobiles of Czechoslovak and Czech presidents. For instance, from the days when motor parades through capital cities were important political dramas, you can admire the same long, black limousine used successively by Czech, Nazi and Soviet leaders, with slight but telling modifications to the car's insignia. Alongside is a Supermarine Spitfire LF Mk.IX in which Czech pilots, fighting for the country's freedom in Great Britain, returned to the liberated Czechoslovakia in 1945.

This demonstrates the importance given in the displays to political, economic, social and historical contexts, as well as innovations and technical specifications. Domestic constructions and the fabrication of transportation means are shown as well as vehicles imported from abroad. The exhibition takes into account their use and human relations as well as their functional qualities.

The curators are in close contact with other museums but try to keep their exhibition unique and specific, based on their exceptional collections. The development of technical museums in Europe is not going in the same direction with the increase in commercialization and popularization. Petr is conscious that over the last few decades many European museums have changed from cultural-historical into didactic-entertainment institutions or even amusement palaces. The NTM exhibitions hope to remain true to the museum's 19th century origins, while at the same time giving modern visitors like us the most appropriate forms of mediation to appreciate the collection's significance.



Inside the NTM transport exhibition.

Photo: Michael Franco.



Modern industrial museums

Italy

The Museum of Geothermal Energy

Dr Simona Politini, Founder & Project Manager
Archeologiaindustriale.net

The Museum of Geothermal Energy in Larderello, near Pisa, tells the story of a region that, from the Roman times to date, has been skilfully able to take advantage of the energy generated in its own soil. Already in 270 B.C., the ancient Greek writer Lycophron narrated the existence in Etruria of thermal waters with healing properties. It is possible that even Dante Alighieri had taken inspiration for his depiction of Hell after having visited these areas, full of lakes of boiling waters and the saturated of thick sulphuric steam. It is not a coincidence that Larderello used to be called the "Valley of the Devil".

The New Museum of Geothermal Energy in Larderello, inaugurated by **Enel Green Power** in October 2013, offers an interactive journey through ten rooms accompanied by a narrating voice. The journey leads visitors to discover the geothermal energy from the Etruscan and Roman hot springs to the extraction of boron for chemical uses (making Larderello the first "factory town" in Italy), to De Larderel who patented a covering which enabled the heat in the steam to be used for industrial purposes. The visitors then reach the rooms dedicated to the first drilling to extract geothermal fluid and to its evolution over time. There is a wonderful journey to the centre of the earth which, through 3D videos, projects the visitor right into the geothermal reservoirs, where it all begins.

The journey then concludes with an insight into Prince Ginori Conti and the discovery of the electrical use of geothermal

energy with the lighting of the first light bulb in 1904, followed by the ignition of the first geothermal power plant in 1913. These rooms also offer the opportunity to get to know the technologies and the mechanics involved in geothermal energy extraction and to have a visual overview of the equipment in the models room.

Around the Museum there are amenities for tourists such ample space for picnics or for the unavoidable photo with the "big lake" of 1827 against the typical steamy geothermal landscape.

In addition to the Museum, the renewable features of geothermal energy are also visible outside: the silver pipes which have become an integral part of the landscape; the Enel Green Power village; the Officine di Larderello; the 33 geothermal plants with their typical cooling silos dotted between Pisa, Siena and Grosseto; the drilling wells; the numerous sites of natural hot springs; the natural routes; the geothermal paths; the Biancane Park in Monterotondo Marittimo (GR); and numerous other sites that tell the story of geothermal energy in Tuscany: all small parts of the large mosaic that, through multiple aspects, allow visitors not only to understand the history, but also to become aware of a sustainable present that has been achieved by working with natural resources, rather than exploiting them. This has brought social, cultural and economic benefits to the local communities and their residents.

Geothermal energy meets approximately 26,5% of the energy requirements for Tuscany and provides heating to around 9,000 homes (a number which is on the rise due to the development of further web of district heating in areas surrounding the geothermal sites). It also provides heating to 25 hectares of greenhouses, dairy factories and it supports an important supply chain for the agricultural, gastronomic and tourist industries.



Geothermal power plant Sasso 2

Modern industrial museums

The Luigi Micheletti Award: a successful story in the museum award space

Laura Diamanti, Assistant to the EMA Director

In spring 2015, the Luigi Micheletti Award will celebrate a very important event: its 20th anniversary. The Award began in 1996 thanks to the fortunate meeting some years earlier between the famous and world renowned museologist Kenneth Hudson (1916-1999) and Luigi Micheletti (1927-1994), an Italian entrepreneur from Brescia. Originating in their common interests, industrial archaeology and social history, and contemporary industry and work history, a deep friendship began and an ambitious project arose: to create an award dedicated to contemporary history museums, museums of industry and scientific museums newly opened or recently renovated and internationally recognised for innovation. It's in this context that the Micheletti Award began giving rise to a long series of successful awards.

Since 2011 the Award has been managed by the European Museum Academy (EMA) in cooperation with the Micheletti Foundation. EMA is a Dutch Foundation active in developing research in the field of museum innovation. EMA rely on a network of highly experienced museum professionals from over 30 countries and, on top of the Micheletti Awards, manages other prestigious international awards: the European Museum Academy Prize, Children in Museums Award and Heritage in Motion. Fondazione Micheletti has created and manages the Musil – Museum of Industry and labour in Brescia, Italy, which includes three museums devoted to the history of work: Museum of Industry and Labour of Rodengo Saiano, in Franciacorta, the Museum of the Hydroelectric power, in the middle of the Valle Camonica, and the Museum of Iron, located in an old forge in Brescia.

The arrival of EMA renewed the Micheletti Awards' formula and allowed participation by other categories such as science centres, visitors' centres and museums of 20th century history (social, political, military), to better reflect the wider scope of the Micheletti Foundation work. Other changes introduced with the new format were the extension of the award for examples of innovative and creative presentations and interpretations of collections, both for totally new museums or existing institutions, and the active involvement in the nomination and selection process of candidates of former winners and of other museums which have made a contribution to the development of museological discourse. Applications are now welcomed from museums of any age. The awarding criteria are concentrated on those aspects of a museum which – in addition to the quality of the exhibitions, of the building, etc. – contribute most directly to attracting and satisfying visitors beyond their expectations, and which Kenneth Hudson called 'public quality'.

Before 2011, the Award was organised by the European Museum Forum (founded as well by Kenneth Hudson) and candidates were selected from the participants of the European Museum of the Year Award (EMYA). The first winner was the Dasa Deutsche Arbeitsschutzausstellung of Dortmund, a social museum representing Germany's largest working-world exhibition focused on man and his life, his health and his physical, mental and spiritual well-being. From the first Award to the present date, winners have been selected from all over Europe, confirming a real and growing interest in the historical, social and scientific themes of the Awards.

The most recent winner in 2014 was the MUSE Museo delle Scienze di Trento (Italy), designed by architect Renzo Piano which opened in July 2013. The prize giving ceremony was held at the Riverside Museum in Glasgow (winner of the 2012 award). The judges commented that "The combination of so many contemporary ideas with established museological approaches makes MUSE a state-of-the-art cultural institution with great innovative potential".

The 20th edition of the Award will take place on 8th and 9th May 2015 in Brescia, Italy, home of the Micheletti Foundation, immediately after the opening of the great EXPO in Milan. Every year applications to participate can be downloaded from EMA or Luigi Micheletti Award websites.

www.europeanmuseumacademy.eu

www.luigimichelettiaward.eu

www.musilbrescia.it

EMA and Fondazione Micheletti keep in touch with the winners even after the prize giving ceremony and support the former winners in various occasions. At the moment the Museu Da Cortiça Da Fábrica Do Inglês in Silves (Portugal), 2001 winner, a museum that tells the history of the major local industry in Silves for 150 years, the cork production, is threatened of sell and demolition and EMA with the support of Fondazione Micheletti is conducting an awareness campaign to avoid this future.



Conference Reports

National Congress of Industrial Heritage: Challenges of Industrial Heritage Conservation, Tokyo 14 – 15 July, 2014

Neil Cossons

The industrial heritage presents issues rarely if ever found in more traditional areas of historic environment conservation. While many of the key principles are the same – of defining intrinsic value, authenticity and integrity – when translated into the industrial context issues concerning, for example, scale, materials or operational sites, present many new and unique challenges. Similarly, capturing memories and meanings for post-industrial communities and reflecting these to wider audiences affords unique opportunities.

This international congress in Tokyo brought together representatives of industry and experienced conservation professionals to discuss key issues concerning the conservation of industrial landscapes, sites and structures. There was special reference to operational sites in the context of world heritage and the issues and opportunities arising from their nomination and management, public and private partnership, and futures for abandoned sites.

The Prime Minister of Japan, Shinzo Abe, accompanied by five members of his cabinet, launched the first meeting of Japan's National Congress of Industrial Heritage (NCIH), held in Tokyo on 14/15 July. Prime Minister Abe emphasised the importance of Japan's industrial heritage in marking the history of the nation, with its roots in the Meiji era and the long tradition of craftsmanship that preceded it. He expressed particular pleasure at the recent inscription – at the UNESCO World Heritage Assembly in Doha in June 2014 – of the Tomioka Silk Mill on UNESCO's World Heritage List and commended forthcoming nominations of historically important industrial sites.

He noted the clandestine voyage in 1863 of the five young men – the Choshu Five – to study at University College London, their subsequent determination to take Japan into the modern world, and their success in achieving that. He saw proper recognition of the industrial heritage as critically important to an industrial nation like Japan and wished to see it as a central element of education and of economic stimulus. In doing so he announced property tax concessions to industrial enterprises that owned historically important industrial sites in order to encourage and assist in their preservation.

In responding, TICCIIH President Patrick Martin and Honorary President Neil Cossons congratulated the Prime Minister and the Government of Japan on their outstanding initiative in inaugurating the new Congress, and especially for developing it as a platform for the engagement of both public and corporate sectors in support of the common cause of industrial heritage conservation. On behalf of the overseas delegates they also thanked the Prime Minister for the generosity of the reception delegates had received, and for what was a uniquely important

event in recognising the importance of historic industrial sites not only in Japan but in the wider world. The National Congress provided a forum for exchanges on policy and practice in industrial heritage conservation that would have far-reaching benefits.

Themes covered reflected issues raised in the preparation of the recent nomination, Sites of Japan's Meiji Industrial Revolution: Kyushu-Yamaguchi and related areas, submitted to UNESCO in January 2014, and its wider international context; conservation of coalmining, iron and steelmaking, and shipbuilding sites, managing serial sites, operational industrial sites and the abandoned coalmining island of Hashima (Gunkamijima), offshore of Nagasaki (Yuko Kuon, Kengo Iwamoto, Shinichiro Yamashita, Yoshitaka Akui, Sukeyuki Mori and Masafumi Uehara). Issues of the conservation of early reinforced concrete structures – a major challenge on Hashima – were addressed by Takafumi Noguchi and Osamu Kiyomiya. There were presentations on internationally comparable sites, including Nord-Pas de Calais (Marie Patou), Big Pit and Blaenavon (Stephen Hughes), Hattingen and Volklingen (Norbert Temple), transnational technology transfer from Germany to Japan (Dietrich Soyezy), German/Czech mining heritage proposals (Helmut Albrecht), mining parks in Taiwan (Hsiao-Wei Lin) and Italy (Massimo Preite), gold and silver mining in Japan (Kazunori Miyahara) and copper mining (Satoshi Onozaki). The consequences of the Bhopal disaster in terms of community, memory and heritage-making were presented by Moulshri Joshi. Shipbuilding included the history of the industry in Japan (Hiromitsu Kitagawa) and conservation of the Mitsubishi Shipyard in Nagasaki (Kiyoshi Yokokawa) and its cantilever crane (Brian Newman), and shipbuilding in Sydney (Iain Stuart). Issues presented by the management of serial sites included convict sites in Australia (Michael Pearson and Jane Harrington), National Heritage Areas in the United States (Duncan Hay). Management of operational sites included Miike Port (Takashi Nanba), the Forth Railway Bridge (Miles Oglethorpe), Montreal (Dinu Bumbaru) and in the context of public/private partnership (Takahiko Hasegawa). There were overview papers on Japan's industrial revolution (Koko Kato), iron and steel heritage conservation in the United States (Patrick Martin) and issues of intrinsic value and authenticity (Neil Cossons).

The concluding session on digital documentation and interpretation as a means of accurate recording for future conservation – 3D laser scanning and 4K – included papers on image transfer from glass dry plates of Yawata Steel Works (Kenji Amioka and Kohei Iwamoto), 4K documentation of working sites in Japan (Hideichi Tameway) and digital documentation of industrial heritage sites in Scotland (Lyn Wilson).

There were some 300 delegates at the Congress including representatives from Australia, Canada, France, Germany, India, Italy, Poland, the United Kingdom and the United States. TICCIIH was exceptionally well represented among speakers and delegates at the Congress. Especially significant was the presence of senior representatives from Japanese industry, many of whom were sponsors of the Congress.

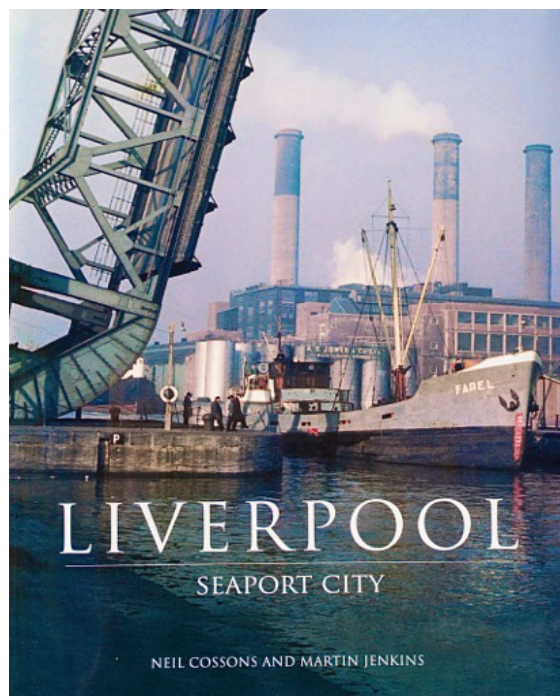
Publications

LIVERPOOL: SEAPORT CITY, Neil Cossons and Martin Jenkins, Ian Allan Publishing, 160pp £19.99

The authors have brought together over 250 photographs from public and private archives and their own collections, almost all previously unpublished, that reflect Liverpool's story. Liverpool is one of the great cities of the world, for two hundred years the Western gateway to Europe and a century ago the self-styled second city of Empire. Its immense wealth, generated through international trade, ship-owning, marine insurance and banking, is reflected today in an outstanding architectural and industrial heritage, the product of mercantile might and civic pride.

But like many great trading cities Liverpool's fortunes have been in decline, with changing patterns of commerce, resulting today in a population half what it was in the 1930s. Liverpool has always been a city of contrasts, of rich and poor living closely together through cycles of growth, decline and now renaissance.

The resources of the [Online Transport Archive](#) (OTA) have been used to great effect. The OTA was established in 2000 to ensure that collections of transport-related transparencies, photographs, cine film and video could be secured for posterity. All proceeds from sales of this book have been donated to the OTA and most photo royalties have been waived.



The cast-iron interior of St George's Church, Everton, 1813-14, designed by J M Gandy, John Cragg and - possibly - Thomas Rickman with castings manufactured by the Mersey Iron Foundry.



Oriel Chambers, 1864, by Liverpool architect Peter Ellis, an iron-framed office building, described by Nikolaus Pevsner in 1969 as 'one of the most remarkable buildings of its date in Europe' and by Charles Reilly as a 'cellular habitation for the human insect'. The facades are almost wholly of glass, the cantilevered oriel designed to capture light in the narrow confines of the city

Coming Soon

TICCIH 2015

Congress, Lille, France; Industrial Heritage in the Twenty-First Century, 5-14 September 2015

Congress 2015 Schedule

- The pre-tour will be organised September, 5 & 6, 2015
- Sept. 6 will be dedicated to Registration, 4:00 to 8:00 pm.
- The opening of the Congress is planned at 10:00 am, Monday, September 7, 2015
- The post-tours are planned from September 12 to 14/15, 2015.



[XVIth INTERNATIONAL TICCIH CONGRESS 2015 Website](http://www.ticcih.org/2015)

Conferences and Congresses

2014

Nov. 6-9: Society for the History of Technology Annual Meeting, Dearborn, Mich. Info: www.historyoftechnology.org.

Nov. 10-14: Italy - 18th ICOMOS General Assembly and Scientific Symposium, Heritage and Landscape as Human Values, Florence

2015

May 28- May 31, 2015: Society for Industrial Archeology (SIA) 2015 – Annual Conference, Capitol District of New York (Albany, Schenectady, Troy, USA)

June 3-7: 5th International Congress on Construction History, Chicago, Ill. Info: <http://5icch.org>.

August 16-21: ICOHTEC 42nd Symposium, “History of High-Technologies and Their Socio-Cultural Contexts”, Tel Aviv, Israel

Sept. 6-11: 16th International TICCIH Congress, “Industrial Heritage in the 21st Century, New Challenges”, Lille, France. Info: <http://ticcih-2015.sciencesconf.org/?lang=en>

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

TICCIH

President: Professor Patrick Martin, Professor of Archaeology
Michigan Technological University, Houghton, MI 49931, USA
e: pemartin@mtu.edu, t: +1 906-487-2070

Secretary: Dr. Stephen Hughes
e: secretary@ticcih.org, t: +44 1970 621215

Editor: Articles and news of recent and future events should be sent to the Editor, James Douet, C. Girona, 173, 5 3, Barcelona 08037, Spain, e: editor@ticcih.org

Bulletin layout & design: Don Durfee e: ticcih@mtu.edu
TICCIH Membership: Don Durfee e: ticcih@mtu.edu
TICCIH Website: Don Durfee e: ticcih@mtu.edu

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

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

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

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

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