



THE INTERNATIONAL COMMITTEE FOR THE  
CONSERVATION OF THE INDUSTRIAL HERITAGE

## TICCIH

[www.mnactec.com/ticcih](http://www.mnactec.com/ticcih)



TICCIH has been active in the discussion about the destruction of the Rheinfelden generating station on the Rhine in Germany. See TICCIH News  
Photo: Wladyslaw Sojka

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### Inside:

Conserving tangible witnesses of industrial culture

■ The Colbert Bridge in the French port of Dieppe was built in 1889 – the same year as the Eiffel Tower. It is a huge iron structure, 8,60 metres wide with a maximum height of 7,1 metres, the longest of its type and the last hydraulic swing bridge still in operation in Europe\*. It is an industrial heritage masterpiece and is crucial to the transportation system of the harbour. It is also one of the main industrial elements of Dieppe and its history. With its elegant operator's cabin and its characteristic outline, it is an emblematic monument for the whole town, and is used as such in the brochures for the local museum.

The bridge was put into service on January 1st but only inaugurated in 1925. It was rebuilt after being blown up in 1944. The bridge was finally called Colbert Bridge after the famous French finance minister who visited Dieppe while serving under King Louis XIV.

All elements were made and drilled in a workshop near Paris before being brought on site and assembled in only four months. Its swing mechanism – as on London's Tower Bridge - is powered by a system that uses pumped water to allow its operators to move the 800 ton bridge with precision and ease. Note that most

of the mechanism's parts are replaced by new ones, manufactured in workshops situated on the spot. Particularly exposed to sea air, the Colbert Bridge reveals a partly advanced state of corrosion but mostly appears in good condition. In 1981 the main metallic parts were replaced by steel parts, and many repairs were made as well as painting works. In 2004 the French State published studies to allow a choice between restoration or replacement of the whole bridge. This document pinpoints emergency repairs which should be undertaken to bear heavier traffic but also insists on the architectural interest as well as the conservation of its memory.

Faced with that, the owner, the Dieppe harbour local authorities, has opted for a new bridge by 2012. The two options are copying the original with modern materials or a brand new bridge. The cost would be nearly 8,000,000 €. The bridge has not been well-maintained except for usual maintenance for more than two years. The owner says that any restoration would represent two years of work. The Harbour Authorities wish that the operation would not exceed five or six months because of the hassle this would cause to users of the port. It has also been suggested to preserve the old bridge by moving it further along the quay and turn it into pub. The mechanism would be exhibited in a museum. In this case will it be possible to restore and preserve it.

Maintaining the Colbert Bridge in service is a necessity for both its enhancement and the whole town. The Colbert Bridge is a work of art but it receives no protection, even though the list of monuments of the French National Heritage contains other iron bridges of the 19th century.

This swing bridge deserves to be part of the French National Heritage. The Colbert Bridge should be protected and restored along with all the machinery, the operator's cabin and machine room.

\* Eric Delony adds 'We have nothing similar in the US to the Colbert Bridge. Our most famous swing bridge that has been preserved in service is Cleveland, Ohio's Center Street Swing Bridge (1901, rehabilitated 1989). It spans the Cuyahoga River in the "Flats," a former intensive industrial, warehousing and manufacturing area. Completely different from Dieppe's Colbert Bridge, Dieppe officials can see what it looks like by going to [bridgehunter.com](http://bridgehunter.com), a remarkable website maintained by James Baughn. (Also reporting the remarkable news that New York plans to replace its Brooklyn Bridge. Is nothing sacred? Ed.)

The swing bridge of Dieppe. the last hydraulic swing bridge still in operation in Europe.

Photo: D DeFrance, 2009



## Opinion

Sébastien Abot

### Save Dieppe's hydraulic swing bridge

## ■ Editorial group

This is the first issue of the *Bulletin* which has benefited from a new Editorial Committee of members. This idea is to draw in a wider spread of opinion about the *Bulletin* and what is published in it, with a stronger system for collecting news and finding out about developments around the world. The members of the group are Dr Moulshri Joshi (India), Dr Hsiao-Wei Lin (Taiwan), Dr Jaime Migone (Chile), Dr Tuija Mikkonen (Finland), Professor Massimo Preite (Italy), Dr Bode Morin (America), Dr Gyorgyi Nemeth (Hungary), Dr Marie-Noelle Polino (France), Belem Oviedo (Mexico) and Dr Iain Stuart (Australia). If any one else thinks they could help gathering the latest ideas in industrial heritage, please write to the Editor.

## ■ E-mailing members

President Patrick Martin has set up a way to mail all the members with news or to ask their views and opinions. The first message in March asked everyone if they would prefer to receive an electronic, or digital, version of the *TICCIH Bulletin* or the paper one. 57% opened the mail, 47% clicked on one or more of the options and 44% opened the letter about Polish Mining (see below) 16 have opted-out of the paper *Bulletin*. No one opted-out of the electronic News.

## ■ Credit card payments

With the success of the Paypal system for paying membership quota the credit card facility has fallen into disuse and has been discontinued. The fee can still also be paid with a bank transfer in countries like Brazil where Paypal doesn't work.

## ■ Conservation of power stations

TICCIH's new approach to advocacy in defence of industrial heritage has continued to be applied to the Rheinfelden power station on the banks of the Rhine between Germany and Switzerland (see also the President's note below). According to Dr. Kurt Beretta of the association 'IG pro Steg' President Patrick Martin's letter to Minister President Oettinger in September 'has become very crucial for the survival of the Rheinfelden hydropower station' - even if 'IG pro Steg' also obtained the 2009 prize from the Swiss Heritage Society for a 'battle in a nearly hopeless situation'. They have now declared the hydroelectric generating station a 'universal historical

masterpiece for three-phase alternating current technique and for the use of renewable energy'. But without a moratorium and new expert's reports of both countries, demolition will probably begin late this year.

Better fortune for the Hydropower Station of Porjus in Sweden. The Swedish Industrial Heritage Association (Svenska Industrimnesföreningen) awarded the prize 'The Industrial Heritage Site of the Year' for 2009 to the Porjus Archives Committee for its patient, long-term and pro-active work in collecting and preserving knowledge about the history of the Station as well as for its work to develop the community of Porjus into an important point of visit and tourism. Porjus is described as a pioneer work from the period 1910-1915 constructed in what was then roadless land. The old station has been restored to its original shape and visitors can now experience the control room and the machine hall.

## ■ President's note

I am happy to report that James Douet has agreed to continue producing the *TICCIH Bulletin* from Barcelona and that the Board has agreed to support his work with a modest salary. For the past several years, James has performed this critical service as a part of his duties for President Casanelles' museum system, but financial responsibility has passed on to *TICCIH's* accounts. In addition to compiling and producing the *Bulletin*, James also maintains the membership database and website for our organization, critical functions of utmost importance to our continuing efficient operation.

Over the last several months since the Freiberg Congress, the Board has wrestled with balancing our budget, while giving due consideration to key functions such as the *Bulletin* and website. Finances have become critical as we assumed more expenses and we look for economy in operations. In this context we have turned to the idea of electronic communications. The Board has been experimenting with web-based meetings with some success, and we've begun to issue occasional Online Newsletters to supplement the *Bulletin*. I hope that you find this line of communication useful and timely.

Using electronic media and networks will no doubt facilitate our communications as we go forward. At the same time, it should also allow us to cut some costs while maintaining quality. For example, the production and mailing of the *Bulletin* in paper form is one of the major

expenses of the organization. Attractive in format, readable and filled with relevant content, this publication is the lifeblood of *TICCIH*. But we spend as much, sometimes more, to distribute the *Bulletin* by mail as we spend on layout and printing! That expense can be reduced and possibly eliminated as we turn to electronic distribution, allowing us to balance our budget without seeking dues increases. Furthermore, this form of publishing is becoming the norm around the world for publications that are timely and ephemeral, like our *Bulletin*. Electronic distribution allows speed of circulation and reduction of cost.

And the environmental cost saving is not trivial, either, with impacts from paper, ink and transportation. I hope that you agree with me that this is the appropriate path for future development.

On another front, *TICCIH* continues its long tradition of advocacy for preservation of important industrial sites and landscapes. At the Freiberg Congress several requests for aid were presented to the Board, and we have gone forward with two actions on behalf of the membership. I issued letters, as President, to a number of government agencies involved in actions that threatened significant industrial heritage resources. In one case, we advocated for the protection of critical elements of the Smeltwerks at Odda, Norway that were threatened by demolition. Responses have been largely favourable, and I believe that we had a significant positive effect. In the second case, we communicated with several entities in both Germany and Switzerland in favour of preservation of the Rheinfelden Power station, one of the world's earliest large-scale hydroelectric plants, straddling the Rhein and serving both countries. This is a controversial plan that calls for demolition and replacement of the plant. Our involvement has been useful for a vocal set of local preservation groups, including *TICCIH* members, who hope to reverse the decision to demolish the building. These types of support statements by *TICCIH* are important to our members, and we have recently instituted an Advocacy Committee to systematically review such requests and advise to Board on potential actions. Our colleague Professor Massimo Priete of Italy will head this effort on behalf of the Board.

■ Thanks to all the contributors.

Photographs are by the authors unless stated otherwise.

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**TICCIH** is the world organisation 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 £20, corporate membership £40, and student membership £10. Payment to *TICCIH*, Lloyds TSB Bank plc, 27 Fore Street, Redruth, Cornwall TR15 2BJ, UK; Account No: 1351659, Bank Sort Code: 30 97 00.

There is an on-line membership form on the web page.

The **TICCIH Bulletin** welcomes news, comment and (shortish) articles from anyone who has something they want to say related to our field. The *Bulletin* is the only international newsletter dedicated to industrial archaeology and the conservation of the heritage of industrialisation. The *TICCIH Bulletin* is published four times a year and is sent to all members. If you have not received an issue, please contact the editor for a replacement. Back issues can be downloaded as a pdf file from the *TICCIH* web site.

Opinions expressed in the *Bulletin* are the authors', and do not necessarily reflect those of *TICCIH*.

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Our industrial past still affects our present-day world; it is part of our culture, preserved in a variety of ways. Cities and landscapes have been formed by industrial architecture. Everyday objects, machines and installations are held in museums as items of personal and collective memory. Libraries and archives contain evidence of scientific, engineering and economic achievements in written form and in pictures.

The restorer's task is to preserve cultural assets in their material form. By identifying materials, manufacturing processes and changes in utilisation, they also carry out object research. Historical research, especially in the technical field, tends to take written documentation as its source, basing its conclusions on this alone. Objects in museums rarely find their way into written history, despite the density of information they offer.

Technical museums were originally conceived as places to exhibit masterpieces of technology and as institutions of technical education. They emphasised the celebration of individual achievement, of the inventor's genius. From the middle of the 20th century, technical museum collections focussed increasingly on satisfying nostalgia for the "good old days". The chance to drive a steam locomotive or historic motor car provided fulfilment of romantic visions of an idealised past, often at the cost of the search for historical accuracy or critical reflection about the present and the past. Preservation concepts were vague; renovation rather than restoration was practised.

This trend increasingly led to the loss of historical relevance of the objects, until attitudes started to change in the 1980s when the status of objects as tangible evidence of the past was recognised. Today, ICOM's Code of Ethics for Museums sets out worldwide guidelines. The code states that the museums' task is primarily to preserve, conserve and document objects carefully; all conservation or other measures should only be carried out by

## Preserving objects as tangible witnesses of industrial culture

Professor Ruth Keller and Ulrich Stahn  
University of Applied Sciences (HTW), Berlin

suitably trained staff. The museum's objects should be preserved as evidence of cultural tradition; carrying out research on them should be seen as a service to the local population.

Objects, with all their marks of use, are evidence not only of the industrial achievements of a particular time, but also point to the people who manufactured and used them, and to various layers of use and changes in use over time.

The University of Applied Sciences (HTW) in Berlin offers a course on the conservation and restoration of historical objects as tangible evidence of the past. The course is challenging, covering the variety of materials, different techniques and technologies and the objects' changing extent of availability. The profession of restorer has emerged from various traditions and requires an interdisciplinary approach, as well as scientific and cultural competence, combined with aesthetic sensitivity and manual skill. The work with technical objects demands, in addition, mechanical and electro-technical knowledge and the ability to deal with large objects and heavy loads. A basic knowledge of structural analysis is also required.

We would now like to describe the process of conservation using state-of-the-art approaches

and techniques, taking the example of a post-war delivery van from the collection of the Berlin Museum of Technology foundation, which was restored as part of the university course.

The most striking feature of the Gutbrod Atlas 800, first produced in 1950, was its design – compact yet aerodynamic. Significant features of the design and construction are the placing of the driver's cabin in front of the front axle, the lowering of the loading space between the two axles and the flange-mounted engine on the central tube frame behind the rear axle, a technique already used in Czechoslovakia before the Second World War. When this van was first sold in 1950, it was a modern, attractive vehicle which fulfilled post-war demands; it was of good quality, suitable for a variety of uses and very economical to run.

The vehicle recently restored at the HTW Berlin was first registered as a truck, soon after its delivery in Nuremberg. It was registered in Berlin in September 1952 by a commercial representative, who used it until late 1959. By this time, Gutbrod had ceased to produce vehicles, so the authorised workshops no longer existed. A Berlin haulage company bought the vehicle in 1960 and soon sold it to a tool dealer. This owner apparently adapted and registered it in early summer 1961 as a camper-van.

The first stage of the HTW project was the documentation and scientific examination of the Gutbrod in summer 2003. A concept was developed in discussions between the lender of the vehicle, students and lecturers. One central point was established: conservation of all aspects of the existing variety, from external appearance to construction details. It was considered essential to show clearly the technical innovation and evidence of a quick and to some extent improvised production. The aim was to demonstrate social aspects of changes in ownership in relation to the loss of the authorised workshops and changes of use. Achieving this involved sacrificing to a large



The Gutbrod Atlas 800 on show at Techno-Classica, the biggest indoor old-timer car fair in Europe. It was the only car conserved with its history intact among thousands of fully-renovated "faceless" cars. Even those who didn't understand why it is not running and shiny again came back to us the following year for more information. For a lot of people it was the only car they really remembered.



Photo was taken during conservation works. The peeling layers of paintwork at the sealing were stabilised by injecting a solvent-based bonding agent under the flakes, after which they could be reformed using heat and reattached.

extent the romantic traces of decay and neglect which dominated the vehicle's appearance at the outset.

The well-planned restoration of an object brings into focus aspects which are otherwise largely ignored. To achieve a good balance between the existing historical layers, the chronology of the materials had to be precisely documented.

The various materials were very dirty and degraded, which caused difficulties in practice. A great deal of hard work went into cleaning the thickly encrusted undercarriage, so that the remains of the original corrosion protection and of largely disintegrated rubber materials could be preserved and stabilised. They constitute traces of the original manufacture.

One of the main basic principles of every restoration is to ensure that all measures are reversible and can be identified by experts. Any additions are marked, at the HTW, with the year and the following code letters:

N.B. - New Built - for an addition that exactly reproduces the historical model

F.R. - Free Reconstruction - for an addition that is indispensable but has no exact model

C.S. - Conservation Stability - for further stabilizing measures

Once in a museum the everyday object becomes a historical source. It is the task of the conservator of technical heritage to uncover the history connected with the object and to interpret it. As much information as possible should be kept for further when there

are better facilities for study. At the same time the conservator's challenge is to bring the object to a stable and presentable condition.

In conclusion: conservation, restoration and renovation are based on completely different ways of reflecting or integrating the past in the present world. The conservation profession demands an interdisciplinary academic education. Precise research, clear conceptual thought and highly-developed sensitivity for non-verbal communication by aesthetic means are the political aspects of this profession, for truth and personal responsibility in a society striving for freedom of thought. Good conservation is an important cultural action; with the past for the reflection about the presence and the future.

## Museums and information technologies

Albert Sierra

The information technologies (IT) have silently integrated themselves into our lives and now infect complete ambits such as office communications, science, and even a sector as essentially conservative such as heritage and museums.

Regarding our expectations when we search for information, we are spoiled by modern search engines into expecting the answer immediately, and a single click. And any organisation that cannot provide their

information at this speed is considered incompetent, or worse. It is not good enough to search through six levels of a structured web page, I want the answer, and now.

If anyone still remembers the early search engines, the webs that were collected were structured in thematic blocks organised by profound thesauruses (an arrangement that we all still have in our museums for our own information and documentation). Modern search systems don't work like this, they look for complete texts (and through the entire Internet!) and they order the reference cards (webs) in order of relevance with respect to the question. Almost all the institutions that have

their content available on the Internet use Google to look for their own documents because their systems of cataloguing take longer to find them. We need to find a glass case to store our thesauruses, and to think about retrieving our information on the objects in our collections by key word, using combinations of text and ordering them by relevance. It is already time to call our era PG (post-Google). Finding the objects in our collections on the Internet has to be as easy as looking for photos with Flickr o Panoramio or videos with YouTube. Anyone wanting to experiment can start with Google Desktop.

## Combination of Industrial Heritage and Creative Industry - Industrial Heritage Conservation Practices in Shanghai, China

Yiping Dong

Tongji University, Shanghai

Since the term of "Industrial Heritage" was introduced to China academia in the later 1990s, the conservation of "Industrial Heritage" has always faced a practical problem: how to re-use the heritage properly? Not only the listed industrial buildings but the potential industrial heritage stocks need new function. Although conservation in Shanghai is in the leading position in China, only 40 historical industrial buildings have been officially listed and protected. As Shanghai has about four million m2 industrial building stock and the very typical industrialization history since 1840s, these 40 sites are only the tip of the iceberg.

The EXPO2010 in Shanghai will open from May to October 2010. With the slogan "better city, better life", the EXPO has transformed one former industrial area across the river. A few industrial heritage sites like docks and chimneys were converted to public spaces. Meanwhile industrial buildings outside the EXPO site are experiencing a severe transformation.

Since 1990 Shanghai started to shift to modern services and recall reputation of financial center. For the environmental and economic consideration, many factories closed and relocated, mainly textile, machinery, automobile, shipbuilding, warehouses, etc; the industrial building stocks are all state-owned. Under the huge pressure of laid-off worker's pension, the managers started to rent these industrial building stocks for income.

From the mid 1990s, several leading artists like Yifei Chen, Deke Erh and Deng Kunyan came back from overseas to Shanghai and rented warehouses as their studios. Through public media, low prices, huge spaces, special aesthetic characters, nostalgic identity to the prosperous 1920s-30s of Old Shanghai, all these attracted freelancers artists, galleries, architect offices into closed factory.

Since 2000, the Shanghai governor started to promote the "Urban Industrial Park" (UIP) project in the closed factories. The "Urban Industries" are clean, environmental-friendly, great job opportunities, and knowledge-based "modern" technology. For cheaper rent and good location, inner-city UIPs also attracted cultural workers. The dilemma sometimes comes: As plot has been leased for redevelopment, the factory is still running as UIP. Under the pressure of redevelopment in 2003, the artist lessees started a campaign to save a UIP named M50, once a yarn company and cotton mill established in 1937, and closed in 2000, and succeeded in altering the plan of this plot. They argued that M50 is the only intact exemplar left, demonstrating the whole national textile industrial history although no listed building inside yet.

The "creative Industry" concept was introduced by researchers later, which was considered the best choice for abundant industrial spaces by the municipality. The Shanghai Creative Industry Center (SCIC) was founded to promote creative industries as a semi-government organization; SCIC helped the Government to designate "Creative Industry Cluster" since 2005. Until 2009, there are 75 CICs designated by city level besides over 200 un-registered CICs. Almost three fourth of 75 CICs are reusing industrial buildings; and 49 clusters re-using the building stocks older than 30 years.

Tian Zifang, Red Town, M50, the Bridge 8, Art

Space No.800, these CICs uses unlisted building, especially for cultural tenants. The 1933 slaughterhouse "Old Millfun" is the only case of listed industrial heritage. It was constructed in 1933, and once the largest slaughterhouse in the Far East. It was listed in 2005 and rented for 15 years as a fashion event hall since 2006 and open after regeneration in 2007.

The urban land in Shanghai recently reached its limits and the abundant industrial building became a richer resource for urban redevelopment. Such active re-using is also regarded as a resistance to former razing style. Determined by an important but unwritten "three fixed and three changed" policy (see below), the re-use practices have the following features: provisional re-use; creative industry; promotions by government and co-investment of state with private. These guarantee state-owned assets and maximize profit; prevent physical deterioration; the re-use procedure triggers in a much lower threshold and increase awareness of industrial heritage. But they also reveal the short term consideration; profit-led strategy; gentrification; mono-function and even mono style. The conservation of industrial buildings in China is still looking for her own way.

Three fixed: 1. the ownership of the property, 2. the building cannot be demolished, 3. the zoning code is fixed as industrial. Three changes: 1. function shift to creative trade; 2. employees shift to creative class; 3. the trades shift to mixed and multicultural.

## Industrial Heritage of Alexandria

Yasser G. Aref

Alexander the Great established Alexandria in 332 BCE as the capital of his empire. He chose a strip of land stretched between the Mediterranean and Lake Mariout and at the same time facing the Pharos Island. Through time the Island was connected to the main land by a bridge that with accumulated silt and debris forming two ports, the Eastern Harbor and the western harbor. As being a key point in the renowned ancient trading routes between the east and the west as the Silk Road and Spice Route, the port of Alexandria is one of the most famous all over the Mediterranean. Mohamed Ali, (1804-1843) the ruler of Egypt perceived the importance of Alexandria as a strategic city, not only in Egypt, but to the Mediterranean as well, and he began plans to renovate the city. They included the enlargement of the Alexandria seaport. As a result trade grew with the north and warehouses were constructed on the peripheral areas around the port to store exported and imported goods. During the 19th and the 20th centuries, Alexandria flourished



1933 Old Millfun – the former slaughter house after restoration.

due to the growing trade with other ports of the Mediterranean. Its economy boomed and as a result its industrial base was expanded.

The industrial heritage of Alexandria is rich and diverse. It includes warehouses, factories, lighthouses, docks, bridges and railway buildings. These buildings express a unique building typology and represent innovations in engineering, use of material, construction techniques and are part of our social history. Today with the changing techniques of shipping, the global shift towards service industries, de-industrialization and the growing awareness of environmental issues, as well as the expansion of Alexandria to become a city of about 4.5 million inhabitants, the industrial heritage of Alexandria is located inside the urban fabric of the city, and many buildings have become obsolete, abandoned and demolished.

The industrial heritage of Alexandria faces many problems such as neglect, obsolescence and demolition. The reasons for this can be referred to the following points:

1 The urban and demographic pressures due to the limited area available for the growth of the city. The high density of the population and the high land value of the factories persuade owners of the factories to sell the land to investors. The factories that once were outside of the city area are now surrounded by housing quarters.

2 The privatization policy of the Egyptian economy: during the 90's many factories were sold to private investors to redevelop the manufacturing process. However, instead the factories were demolished and developed as housing apartments.

3 The protection of environment law issued in 1994 that forbids the existence of workshops, factories and manufacturing plants inside housing areas.

4 Changing techniques of fabrication, shipping and goods handling and the changing trends in industry and shift from heavy industries to the growing service industry have made most

of the industrial buildings of Alexandria obsolete.

5 Lack of local public awareness of the value of industrial heritage as part of the urban heritage of Alexandria. And the absence of the.....

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## New post-graduate course on industrial heritage: use and re-use

The new course is a Master's level training at the Department of Conservation of the University of Gothenburg. It is intended to run from May to June, the spring semester starting in 2010. The objective is to study the late-20th century development of the industrial society, where a growing realization that industrial plants and systems have an importance as cultural heritage. In that capacity they are often used as resources for a growing tourism industry but could also be used in other turn-over projects where local economies, regeneration and small-scale industrial or trade development are key-words. Central issues in the course are contemporary heritage practices, value and interpretation, heritage construction, and global perspectives on industrialization and heritage. The Department of Conservation is situated in Gothenburg and Mariestad, separated by roughly 200 kilometres. It holds a staff of circa 50 persons with expertise in primarily preservation and history of cultural properties and built heritage. In the university context the department is organized within the Faculty of Science, with collaborative links primarily with the Faculty of Humanities and Chalmers School of Technology. The department provides education on basic, advanced and doctorate levels, with five bachelor programmes, one master programme, a number of courses outside the programmes on basic and advanced levels, and one PhD-programme in conservation. The total number corresponds to some 300 full time students. Contact Bosse Lagerqvist, [www.conservation.gu.se](http://www.conservation.gu.se)

## Rich Pickings in Mexico on the bicentennial of its Independence and centennial of its Revolution

Miguel Iwadare (TICCIH, Mexico) & Roger Harris (Elwin Harris & Associates, UK)

Mexico is unique as the earliest buyer of industrial artefacts from Europe, preceding New England by some years. Much like the Mayan pyramids of the Yucatan Peninsula, some of those artefacts lie hidden where they were built, due partly to Mexico's turbulent history, its economic upheavals and varied topography. The Mexican tradition is to treat the dead with reverence and a certain nonchalance.

In the late 18th century, England amongst others supplied their valued customer, New Spain, with considerable quantities of machinery. Lancashire boilers and Coining Presses of that vintage were found, still in working order, in the Casa de Moneda (the mint) in Mexico City less than 40 years ago. It was the Napoleonic War in Spain, leading to El Grito de Dolores (the Dolores Uprising) in 1810 and then to independence in 1821, that provided the major impetus to a revival of business. Informed by the writings of Alexander von Humboldt, English entrepreneurs, politicians and bankers saw the Latin American trade as their salvation and lost no time in seeking opportunities for profit. The files of the Foreign Office in London bulge with reports about the state of Mexican industries and reveal just how much interest there was. In 1825, His Majesty's Chargé d'Affaires reported to the Government in London in great detail on the state of Mexican Industry and the mines in particular, devoting 24 pages to Mexico and rather over-shadowed other Latin American reports. Yet a few months later he was reporting wistfully on industrial dereliction within the Mint, a foretaste of turbulent times ahead.

Mexico's complex stories of progress from those days to the present are being recorded and celebrated, none more so than the Cornish mining fraternities that quickly developed on the back of investments in Mexican mines by eager British and German promoters and shareholders. Links were established which are being revived today. Management came with mine ownership, promoting technology transfer and a flood of new machinery. The huge pioneering achievements of Cornish engine builders for the mines of Real del Monte y Pachuca were celebrated by the descendants of those builders in 2008 with a splendid re-enactment of The Trek. Back then however, battered by debts, profits from Mexican mining operations proved illusory. Indeed the growing Foreign Debt prompted the undemocratic French Intervention in 1865 with its many influences. Support for industry was not a high priority for the French, who wanted to bring education, medical teaching, and the Arts. So it was not until the outward-looking Porfirio Diaz presidency of the 1870s



Chimney and building of Alexandria Water Company, built around 1886, standing gracefully in the urban landscape of Alexandria.

Source: Y.Aref

that a new industrial era was promoted; it lasted a few decades before revolution again disrupted the land in 1910.

Much of the machinery then lapsed into disuse while remaining extant in the Mexican fashion. In the remote north of the country and even in populous Mexico City, artefacts from previous industrial eras lie safely hidden from general view, preserved by the dry climate and awaiting discovery, research and perhaps restoration. A recent article in the TICCIH Bulletin on the restoration of the Ojuela Mine suspension bridge is an example. Two others illustrate the rich pickings awaiting those with opportunity to seek them out.

Two Harvey rotative beam engines dated 1852 lie within the boundaries of a working mine in Fresnillo, north of Zacatecas. The engines remain where they fell, affectionately cherished. The bar of the Mine Social Club was built around one of them and is in daily use. Interestingly, Kenneth Brown points out that early historical facts about these engines came from research in Cornwall: the Harvey business was wound up around 90 years ago but key archive papers are preserved in Truro, demonstrating the benefits of international collaboration in such research.

A hydraulic jigger is to be found in a rock gallery under Chapultepec Castle in Mexico City, made by Warner of Cincinnati, USA, probably c1892. It would be possible to restore the elevator to full working order; small parts were missing but it was in excellent condition thanks to the low humidity in its 120 year home. Later research revealed that this artefact is a rarity. Most were scrapped when electric drives replaced hydraulics and with later calls for scrap iron in the World Wars. Museums regarded the remaining examples as less exciting than steam engines, though one curator said he preferred the gurgle and sigh of a hydraulic machine to the hiss of

steam. This example comes late in the 60 year life-cycle of the technology as is evident from its control and safety systems. The size of the Chapultepec jigger is also exceptional. A recent history of USA elevators shows many examples but none so large. The Smithsonian Museum has even recovered a small jigger example from a Boston house but has yet to find space to exhibit it.

While the country is preparing itself to celebrate the bicentennial of its Independence and centennial of its Revolution with mass concerts and popular events, the artefacts that were part of these historical events are still waiting for recognition from the public. It is our task to create awareness to this public and authorities so that these artefacts can join the celebrations for the next two hundred years.

## Ireland

**Stephanie Bourke**

Committee member, Mills & Millers of Ireland/Industrial Heritage Association of Ireland

In their 2002 publication *Recording and Conserving Ireland's Industrial Heritage*, Fred Hamond and Mary McMahon observed that due to the insignificant deposits of coal and iron, heavy industry did not develop in this country. The emphasis was on agriculture and the processing of agricultural products. It is perhaps not surprising therefore that industrial heritage does not enjoy the same status or attract the same attention in Ireland as other more easily recognisable forms of heritage such as monastic sites or music traditions. Our close proximity to Britain, a giant in the field of industrial heritage, tends to further dwarf our best efforts.

Industrial activity may have centred on agriculture but transport and communication networks and public utilities developed apace.

Interest in all forms of heritage in Ireland has gained momentum over the past decades, and specifically since the establishment by the Irish Government in 1995 of a Heritage Council, an independent statutory body. Growing recognition of the role of heritage in the tourism offering has also played an important role. Industrial heritage is slowly finding its voice in activities generated, on the one hand by a concern for the built heritage and on the other by economic forces.

Data collection was begun in the 1970's when surveys of industrial sites in some parts of the country were undertaken by a Government Agency to inform Local Authorities in their planning processes. Since 2002, Local Authorities, in collaboration with the Heritage Council, have begun drawing up five-year heritage plans. In some, admittedly few cases, industrial heritage has been singled out and specific studies commissioned, for example in the case of Dublin City, Waterford, Kildare. In-depth studies of railways, bridges, canals and mills have been undertaken and published for some counties.

Voluntary organisations, as in other countries, play a pivotal role in the preservation and conservation of the industrial heritage in Ireland. The Industrial Heritage Association of Ireland; Mills & Millers of Ireland; Inland Waterways; Railway Record Society; Mining Heritage Society of Ireland and others work to raise awareness, preserve and conserve. There are active community groups also such as Williamstown Heritage Group in County Galway, which has purchased and restored their local water-powered corn mill as a millennium project; a group striving to find a new life for the Cork City Beamish & Crawford Brewery, closed end of 2008. Efforts to reinstate a railway, 117 year old steam engine and create a rail museum in County Clare featured in national newspapers in December 2009.

Publications such as Colin Rynne's *Industrial Ireland 1750-1930: An archaeology* (2006); the ground-breaking work in 2005 by the public utility provider, Electricity Supply Board, entitled *A Heritage Inventory of ESB Buildings in Ireland* and the 2009 conference proceedings *Archaeology of Irish Industry: Recent Excavations* published by the Industrial Heritage Association of Ireland contribute to the knowledge base and raise awareness.

Industrial heritage in Ireland is specific and unique as is the case elsewhere. However, what we have in common with other countries is the challenge we face in how and what to preserve. Sharing ideas, learning from others is central to how we proceed.



Outside of one of the two Harvey engine houses in Fresnillo, Zacatecas.

Photo: Roger Harris

## Outback and Beyond in Broken Hill, Australia (22 -25 April, 2010)

Iain Stuart

JCIS Consultants

Two hundred or more delegates to the Outback and Beyond Conference visited Broken Hill in far western New South Wales, Australia – briefly making heritage the second largest industry (next to mining) in the town. The Conference was convened by ICOMOS (Australia), TICCIH and the City of Broken Hill. Organising a conference so far away from the major Australian capital cities was a challenge that took on almost biblical overtones with fire and brimstone from Iceland cutting off European air transport and plagues of locusts affecting land transport to Broken Hill. Rain was also an unexpected problem, forcing the hurried rescheduling of an outdoor barbeque at the historic town of Silverton; however, the breaking of the drought has left Broken Hill and its environment with a green mantle and full reservoirs giving conference delegates an unusual and rare view of the place.

The Conference was organised around the themes of “Management of Historic Towns”, “Industrial Heritage” and “Remote Pastoralism” – all of which present challenges and opportunities for the Broken Hill region as well as much of Australia.

The Conference opened with ICOMOS and TICCIH-in-Oz meetings; followed by the all

important Registration and drinks at the Broken Hill Regional Art Gallery (formerly Sully's Emporium, an adapted heritage building). Mr Simon Molesworth, Chair of the International National Trusts Organisation, launched Broken Hill: a Guide to the Silver City by Elizabeth Vines.

The next day started with official welcomes by the President of Australia ICOMOS, Dr Sue McIntyre-Tamwoy and TICCIH Australia Board Member, Dr Iain Stuart. Welcome to Country was given by Indigenous Leader, Ms Maureen O'Donnell.

The theme for the day, the Management of Historic Towns, was introduced by Sir Neil Cossons (UK/TICCIH) talking on ‘Cultures, Communities and Conservation: a future for global heritage’. A panel discussion on Broken Hill followed which looked at the mining and town heritage followed.

A tour of the township of Broken Hill and its built and environmental heritage followed. Delegates commented on the nature of corrugated iron architecture which typified many of the miner's houses.

Day Two focused on Industrial Heritage, starting with a keynote address by Deborah Boden (UK/Cornwall WHS) ‘A Living Legacy - the interaction of Cornish mining heritage and contemporary culture’, and Mr Gerald Takano (USA/US ICOMOS) ‘Beyond Sentiment: Financing the Rehabilitation and Restoration of Historic Company Towns and Industrial Sites’.

The afternoon tour was of mining sites. We

were fortunate in gaining access to parts of the historic North Mine and Freemans Shaft on the mining leases owned by Perilya Broken Hill (a conference sponsor). We also visited a smaller mine site, Brownes Shaft, at the Junction Mine (owned by the City of Broken Hill). Those on the tour saw first-hand the richness of the surviving heritage but also the difficulties of contemplating its conservation; notes can be downloaded from <http://www.jcis.net.au/> - go to the download page.

Simon Molesworth (whose family now owns Clevedale) presented ‘The challenge of the ephemeral: endeavouring to put principle into practice when faced with the ephemeral nature of Outback Heritage’. Papers on Remote Pastoralism followed after lunch, leading to Professor Peter Spearritt's concluding address ‘Broken Hill for workers and tourists’.

The participation of TICCIH in the Conference was a great success and important in the context of TICCIH developing its Australian section, TICCIH-in-OZ. There is a considerable interest in industrial heritage among heritage practitioners with many people talking to myself or our National Representative, Helen Lardner about joining TICCIH and TICCIH's activities. This will flow on to more members and more activities related to the protection of Australia's industrial heritage.

*Abstracts of the very interesting and varied presentations and keynote addresses can be found at (<http://www.icomos.com/2010-outback-and-beyond/>).*

## TICCIH Conferences

For all conference information consult [www.mnactec.cat/ticcih/agenda.php](http://www.mnactec.cat/ticcih/agenda.php)

### Finland

**‘Reusing the industrial past’, a joint international conference between TICCIH and ICOHTEC with Worklab**

*Tampere, 10-15 August.*

■ An important conference between the two world organisations for industrial and technological history, its archaeology and heritage. Organised by the Museum Centre Vapriikki and the University of Tampere. the programme includes scientific and plenary sessions, business meetings and tours.

Info: [www.tampere.fi/english/vapriikki/index.html](http://www.tampere.fi/english/vapriikki/index.html)

### Spain

**‘Diseño, Imagen y Creatividad en el Patrimonio Industrial’, XII Jornadas Internacionales de Patrimonio Industrial,**

*Gijón (Asturias), 29 September - 2 October*

■ Annual conference organised by INCUNA, this year on industrial design. Info: [www.incuna.org](http://www.incuna.org)

### Brazil

**VI Latin-American Colloquium on preservation of industrial heritage, Belo Horizonte, Postponed to spring 2011. Final date to be confirmed.**

■ Colloquium aiming for a closer integration among the Latin-American countries. [ticcih.brasil@gmail.com](mailto:ticcih.brasil@gmail.com)  
[www.patrimoniointustrial.org.br](http://www.patrimoniointustrial.org.br)

## World Conferences

### United Kingdom

**Big Stuff 2010**

*Cambridge, 6-10 October*

■ 3rd conference on the conservation of large technology objects at the Imperial War Museum (IWM) Duxford. Special session on industrial monument preservation.

Info: [cknapp@iwm.org.uk](mailto:cknapp@iwm.org.uk)

### Portugal

**1st International Meeting European Architectural History Network (EAHM)**

*Guimaraes, 17-20 June, 2010*

■ Scholars sharing research objectives in architectural history gather in Portugal. Info: [www.eahn2010.org](http://www.eahn2010.org)

### Poland

**Monuments of technology in economy, social policy and culture.**

*Wałbrzych, Nowa Ruda, Dzierżonów, widnica, 12-15 October. Call for papers*

■ The role of industrial and technological heritage in the processes of economical, social and cultural transformation. Info: [www.nadbor.pwr.wroc.pl](http://www.nadbor.pwr.wroc.pl)

### United States

**23rd World Canals Conference. Rochester, New York 19-24 September, 2010. Call for papers**

■ Meeting of waterway managers, users, associations and professionals in Rochester on the Erie Canal, which first opened in 1825.

Info: [www.wccrochester.org](http://www.wccrochester.org)