



The Distillery District in Toronto, Canada has been transformed into a vibrant arts and culture precinct while preserving much of the character and atmosphere of its original function as the Gooderham and Worts Distillery. (photo: [www.thedistillerydistrict.com](http://www.thedistillerydistrict.com))

## Inside: Has industrial conservation a business value?

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## Opinion

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### Balancing Conservation and Adaptive Reuse: the Distillery District, Toronto, Canada

If the purpose of historic conservation is to safeguard the heritages values of a site, then much of what is done under guise of industrial conservation fails. This is particularly true of projects involving the adaptive reuse of industrial complexes for residential, commercial or institutional uses. In principle adaptive re-use is a good thing. Buildings that do not have a function cannot be preserved. Far too often, however, conservation is limited to the exterior shell of the building. It forms the skeleton of the project and architects are then given free licence to reinvent the spaces according to contemporary architectural tastes for clean, sleek interiors and gentrified landscapes with neat paving stones, water features and raised planters.

Adaptive reuse of industrial complexes for commercial development clearly must respect the needs of the developer to create marketable space but this does not mean the principles of good conservation practice need to be set aside. The Gooderham and Worts Distillery in Toronto, Canada provides an interesting case study of an industrial heritage project that was initiated by a profit-driven real estate developer but with a well-defined conservation strategy integrated into the development planning process. The historic complex, which consists of over 30 stone and brick structures dating from 1859 to 1927, covers a 13-acre site on the eastern edge of downtown Toronto. When the plant closed in 1990 its historic significance was undisputed but what to do with it? Many believed that it should be fully preserved and turned into an industrial heritage attraction but, as is so often the case with sites of this size, there was not enough money in the heritage sector to make it economically feasible.

In 2001 the entire site was purchased by Cityscape Holdings, an innovative developer with experience at in the adaptive reuse of heritage properties. Working with ERA Architects, a well-known firm of conservation architects, they presented a vision for a pedestrian-friendly arts and cultural precinct which would exploit the site's industrial heritage to impart a unique identity to the development. OAt the outset, a conservation strategy was developed that called the retention of as much of the historic fabric as possible and to alter or intrude as little as possible. As a result, much of it overhead piping and signage that was part of the integrated distillery process is still and place and the brickwork has been allowed to keep some of the gritty patina of an industrial plant. On the interior many features associated with distilling process have been integrated into the new commercial functions. For example the bins that stored the grain for whiskey have been retained in converted office spaces and the large control panel for the distilling room remains in an office now occupied by graphic design firm. The spaces have a quirky quality but the strategy of the developer has been to find tenants who see this as an asset rather than a liability. An interpretive centre and guided tours of the site are provided as part of the experience.

The Distillery District is clearly not conservation to museological standards and in the course of implementing the project many compromises had to be accepted to make it economically viable. This project is worthy of note for the fact that the heritage values of the site were defined very broadly not only in terms of the physical structures but in the processes that went on inside the buildings and the overall character of a working industrial plant. Although much has been removed, the site's connection to its industrial past survives as an underlying layer of history that is still legible in the character of exterior and interior spaces and the surviving remnants of the industrial processes, which now form integral components of its new function.

## ■ The TICCIH section for hydroelectricity and the electrochemical industry

The establishment of a specialist section for the Hydroelectricity and the Electrochemical Industry was on the agenda at the conference on the industrial heritage of electricity in Divonne-des-Bains (France) and Geneva (Switzerland) in June 2007. Mrs. Randi Bårtvedt, head of the Museum of Hydropower and Industry in Norway, presented and discussed the function and the role of this specialist section.

The Secretary's role is to co-ordinate the work of the section, which has members from Spain, France and Norway. Hydroelectricity plays an important role in these countries. As far as Norway is concerned, 99 per cent of produced electricity is based on hydropower. Tyssedal powerstation is the pride of the Museum of Hydropower and Industry in Norway. The station was erected in the years 1906-1918. It is one of the first power stations in Northern Europe built with a water reservoir and pipelines with a high fall. The technology came from Sweden, Switzerland, Germany and other countries. From 1908 it supplied factories producing carbide and cyanamide for international markets with electricity. The factories were shut down in 2003, and today the discussion is how much of the works are to be protected. The power station was protected by the Norwegian directorate for cultural heritage in 2000. Since then the plant has gone through a thorough restoration.

The aim of the section will be to promote TICCIH and its activities, to enhance the links and connections between members with particular interests, and to facilitate the transfer of knowledge, experience and information between them by way of conferences, publications and visits. Other aims are to identify, promote and assist in the preservation of the heritage of hydroelectricity. A further task is to advise upon the matters in

connection with hydroelectricity and electrochemical industry. It is also important to liaise with other organisations within the section's area of interest. A precondition for a good flow of information is to establish, review and maintain a list of persons interested in the hydroelectricity and electrochemical industry. Finally, the ultimate goal is to establish a list of sites of international interest. This will be of immense benefit in assessing future potential world heritage sites. Our aim is to establish an international list of hydroelectricity sites with electrochemical plants attached.

Our hope for the section is that people from the all over the world will send in and share information about hydropower plants and electrochemical works. In that way we will be a progressive and dynamic section focusing on this important part of the industrial heritage.

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## ■ Web page updates

The information available on the TICCIH web site has been recently updated by Renia Polychronopoulou, a Greek archaeologist working at the Museu de la Ciència i de la Tècnica de Catalunya. As well as information sent to her by the national representatives in Latvia, India, Belgium and Japan, including some excellent photographs of industrial sites in those countries, the page of links and of on-line inventories has been revised and extended. Renia got her degree from Glasgow University and has also studied in Sydney. She's now collecting information on graduate and post-graduate training courses to bring the section on university training up to date.

## ■ Latin American Declaration of the Industrial Heritage

On 20th of September, in the final sessions of the 5th TICCIH Latin American Colloquium of Industrial Heritage in Buenos Aires, Argentina

and following a series of meetings between the president and representatives of TICCIH from the region, it was decided to create a platform for exchange and mutual support. Its main aim will be to bring in to our organisation those countries that still have not joined. There are important states such as Colombia, Venezuela, Paraguay, Ecuador, Bolivia and all of Central America where there are still no groups associated with TICCIH, and these are our priority. At the same time, we hope to become a reference point for the activities, projects and for urgent cases related to the industrial heritage of the region, the newly-created international group helping to strengthen and multiplying its effect and weight.

And for cultural and also strategic reasons, Spain and Portugal are also present on this platform, for their undoubted value for Latin America.

The first act of the platform was to publish the 'Latin American Declaration of the Industrial Heritage', the Spanish text of which can be found on the TICCIH webpage.

Dr. Arq. Jaime Migone Rettig, President TICCIH-Chile, TICCIH Board member

## ■ TICCIHUK

The recently established United Kingdom committee of TICCIH is discussed by Dr Stephen Hughes in his review of the canals conference on page 7.

## ■ Board meeting in Freiberg

The next meeting of the TICCIH Board will be held in October in Freiberg, where the 2009 TICCIH Congress is going to be celebrated.

Thanks to all the contributors: Dr. Joan Carles Alayo, Denis Barlow, Dr. Hans-Peter Bärtschi, Christoph Lingg, Randi Bårtvedt, Dr Stephen Hughes, Dr Jaime Migone, Jonathan Truillet, Guy Scherrer, Stuart B Smith, Janet Wright and Dr. Denis Varaschin.

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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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■ Heineken France is the owner of four industrial breweries which share a very long and rich history. Since the beginning of 2007, the company has decided to begin a huge project which aims to create a real “enterprise memory”. This kind of work is becoming very current among French companies which are more and more interested in their history and their heritage. But, according to the importance of the brewing heritage in France, Heineken’s policy raises many questions about the new relationships between industrial heritage and private enterprise.

The first aim of this policy was to improve the conservation of the old and more recent advertising archives of the breweries owned by the group. As a matter of fact, Heineken France’s Executive Board seems to be aware now that this heritage could be a strategic tool in order to improve commercial actions tomorrow. Actually, a database of old advertising campaigns can help to find new ideas, but also to explain why the launching of a product has failed in the past. This kind of attitude explains the new importance that private companies are according to their heritage. They have understood that it wouldn’t be possible to build the future without seeing the past.

Heineken France aims also to create a real enterprise culture with the help of its history. It is very interesting to underline that this project began when the company had economic problems, closing down various industrial sites since 2005. Because of this situation, many workers have felt uneasy, especially in Alsace, and the Executive Board understood that it could be reassuring to put the stress on the roots of the company, in order to explain that the history of the enterprise is a long one and



The Fischer’s brewery in Schiltigheim (photograph taken in the 1920’s) and owned by Heineken France since 1996. Heineken France collection

## Industrial heritage and business patronage: new deal and new problems

**Jonathan Truillet**

Consultant for studies on industrial heritage

that its story will continue despite the current difficulties. So, here we understand that this policy was not encouraged by a pure interest for industrial heritage, but by the imperative of marketing strategy and social relationships.

Between the requirement of conservation and the imperative of communication.

This project has mainly taken the form of a huge exhibition in Schiltigheim, a city near Strasbourg (Alsace) where Heineken is the owner of two breweries. This event was called “Génération[s] Brasseurs” underlining how it can be difficult to convince a private company to enhance architectural and technical heritage when the institutional communication is at stake.

Actually, the aim of this exhibition was to show what a long history brewing has in the city, and that this activity will continue tomorrow. In this context, the industrial architecture, which is

very beautiful and interesting in Schiltigheim, raised two problems. First, it appeared like the symbol of industrialization of the brewing activity, while Heineken France preferred the myth of a beer made using traditional methods. Moreover, this architecture evokes the problem of industrial wastelands created by Heineken in the city, which is quite bad for the picture of the company.

This point of view explains also why the conservation of the old brewery archives is not a priority for Heineken. Although the company is the owner of the archives of very many French historical breweries which have disappeared (the Comète Brewery, the Colmar Brewery, the Karcher Brewery and so on...), it seems that the Executive Board is not interested by this subject.

However, the imperative of communication can provide funds to enhance industrial heritage. The exhibition “Génération[s] Brasseurs” was a successful event and the first time that a scientific and cultural point of view was focused at this scale on this part of Schiltigheim history. With the help of the city council, and especially with the regard of Armand Peter, a local historian, the exhibition has contributed toward a better recognition of the importance of the brewing heritage by the local population.

The Heineken France policy shows us what could in the future be the new relationship between private enterprise and industrial heritage. Quite obviously, the more this field will become a strategic tool for big companies, the more it will be difficult to convince them to lead a disinterested scientific conservation project. Specialists of industrial heritage have to be aware of this new situation. On the other hand, they must try to find an argument in order to demonstrate that a reasoned conservation policy could be not only responsible behaviour but also an efficient investment. As a matter of fact, it seems that people are more interested in the subject and that the social demand for better protection of this heritage is growing day by day. So, can the defence of industrial heritage become as important as environmental protection, which is appearing now as a priority for many companies?

But first and foremost, it seems that private companies request advice because industrial heritage requires specific knowledge that is not still generally available for this kind of enterprise. Specialists in this field will have a role to play in the future as advisers for business patronage for industrial heritage. They will have the duty to convince businessmen that our industrial past is a real priority.



The Adelshoffen brewery, bought by Heineken in 1996 and closed in 2001. Heineken France collection

### Preserved industrial landscapes as tourist attractions

Over the past 30 years, 100 million Euro has been invested in historical monuments in Zurich Oberland. ARIAS Industrial Culture, a Swiss organisation, set up the Industrial Heritage Trail to inform the public at large about the quality of life in one of the oldest industrial landscapes in Switzerland and to revitalise the textile industry, which has suffered from many closures. In 1990, the author of this article received an award for the

## Tourism – Business methods to preserve historical railways and industrial monuments

**Dr. Hans-Peter Bärtschi**

[www.arias-industriekultur.ch](http://www.arias-industriekultur.ch)

innovative ways in which he revitalised the area. The prolonged efforts of 60 members of 10 different associations, as well as support by the media, landowners and authorities, were decisive factors in its success. These revitalisations included a wide range of conversions and museum projects discussed below. From Bäretswil, 1000m above sea-level, to the Greifensee, 435m high, the Industrial Heritage Trail cross-links 50 tourist attractions.

## Museum Objects

In 1979, the last water wheel sawmill in Zurich Oberland became the first item restored. Associated members keep a steam engine operational in the Uster Brewery. The Spinning Mill Museum in Neuthal represents the peak of the preservationists' efforts. In the old building, retired as well as employed engineers of the Rieter machine factory restored the uniquely complete spinning machine plant for operation in their free time. The Spinning Mill Museum was opened on the 21st of June, 1998. Today, the whole production process from cotton bales to threads can be demonstrated with original machines dating from 1856-1942.

## Converted buildings

Even more important for the preservation of industrial landscapes are temporary conversions into workshops, offices, studios or cultural events as well as conversions of empty factories for trading and living space. The 56 single-family houses built into the former spinning mill Oberuster, a construction covering 6000m<sup>2</sup>, and the Dinosaur Museum in the shed of the spinning mill Unteraathal, are examples of truly creative conversions. Such concepts have improved the quality of life of these industrial landscapes over the past 20 years.

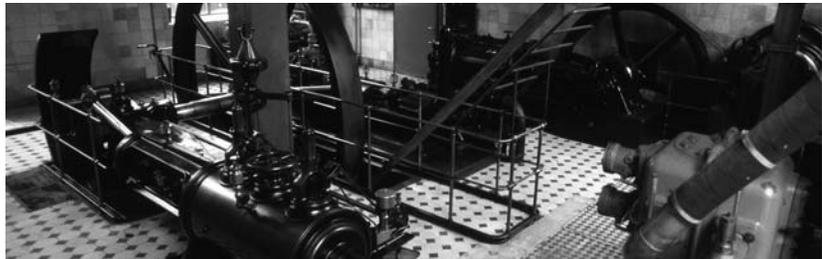
The Industrial Heritage Trail's success has helped inspire similar revitalisations in the Cantons of Zug, Aargau (Baden), St.Gallen (Bischofszell-Hauptwil) and Glarus.

## 'Nostalgic' journeys aiming to preserve historic means of transport and abandoned railways

Two means of transport, run by independent associations, increase the tourist value of Zurich Oberland with its Industrial Heritage Trail: The steamer dating back to 1895 for cosy journeys on the Greifensee and, on summer weekends, the Hinwil-Bauma steam railways. The locomotives are maintained in the former engine shed in Uster dating back to 1856. The trail aims to combine ecological and societal preservation with the marketing potential of historical, 'nostalgic' travel routes. The development of historical industrial landscapes, combined with historical transportation methods, has led to a modest but continued success: 7,000 admissions to industrial monuments, 14,000 hikers on the

■ Old industrial buildings are usually empty, with no machinery, and arguments about industrial heritage are related to architectural questions. These usually revolve around its value and significance and the reasons that can be found for conserving the building. The cost is often high and it's necessary to invent a new use to justify its preservation as a witness of the past.

So it is highly fortunate for understanding the industrial and technical evolution of an industrial building if it still contains its machinery. These can be considered as "time capsules" (in TICCIH's sense of the phrase), and if their content is significant enough (representative of a typical period, or of the evolution of a process) the best re-use option



Steam engine brewery Uster 1897, exhibited since 1997.

Dr. Hans-Peter Bärtschi

Industrial Heritage Trail and 22,000 steam rail passengers every year - a welcome supplement for a region that has lost almost all jobs in the textile industry, once the dominant field in Zurich Oberland.

## Cross-linking with the Swiss industrial heritage network

Several industrial areas in Switzerland strive for the cross-linking promoted by Zurich Oberland. However, isolated sites are still the norm: Switzerland, the country with one of the highest museum densities in the world, not only offers a large number of unspecialised museums but also numerous similar small monuments. Cross-linking such sites and museums in highly dense areas improves their chance of survival. Furthermore, it facilitates large-scale preservation in areas where the issue of industrial heritage is prioritised, which is vital in an extremely federalised country such as Switzerland. The Society for the History of Technology and Industrial Culture aims towards a faster and more efficient exchange of information about endangered objects and archives. The tourist marketing of railway and industrial heritage, however, is its main goal because its net profit can be reinvested in further preservations.

## International activities

From 1979, the Industrial Heritage Trail Zurich Oberland and the inventory of all train stations of Swiss Federal Railways were the first large tasks of ARIAS Industrial Culture. More and more it realised further cross-linking projects in Switzerland. ARIAS Industrial Culture



Steam loco shed Uster from 1856, 7 million euro restoration project.

carries out inventories from individual machines to whole industrial landscapes, plans preservation projects, undertakes media work and arranges tourist marketing - all necessary measures to preserve industrial monuments.

Since 1990, numerous visits to Germany, Austria, Spain, Romania, and Japan took place to offer advice on the preservation of industrial monuments.

## Achievements of ARIAS:

- 22 nonfiction books
- 30 projects and museums about cultural monuments
- 100 exhibitions related to transport and production
- 1,000 articles as well as radio and television programmes
- 10,000 inventories of objects of industrial culture
- 150,000 people have visited the events
- 200,000 photos, drawings and plans in the archive

## The building and machines conjunction

Guy Scherrer

will be as a technical museum.

It's important, however, to study the interaction or "interweaving" between the building and the machines before any are removed.

The most interesting part of my work is the study of this conjunction between buildings and machines, and the project development I will explain here gives some details of this work. The adaptation of an industrial building to its machinery is a very important notion: for instance, during the 18th century the French engineer Vaucanson built new silk twisting machines and at the same time erected new hydraulic mills able to host them. When the machines change, the building is usually modified but it keeps some spoors or indications of the ancient arrangements.

With a good knowledge of technical history and of the different machines, it's easy to "read" the building and to understand its history. Sometimes a building may still contain its original machinery. This rare conjunction gives an excellent 'photograph' of the original way in which the building worked when the machines were new. Study of such sites is essential for scholars, especially as the spoors left by previous processes will disappear with the transformations of re-use.

The ideal solution in these cases, from a scientific point of view, would be to preserve them as technical museums. But the cost is high and it's necessary to ask whether there is enough to interest a large public. An industrial site can be extraordinary for some scholars but without much interest for a large public.

The distinctiveness and the specific character of such sites must head the project development. The whole site (its location, its buildings, its machines and pieces, the know-how in its working, its social influence) is important, while traditional museums are

usually built around a collection of objects.

In a period of economic transformation of society, another role for industrial heritage projects is to accompany the population during this process: when a mine closes, the miner whose father and grandfather were miners, living in a town organized around the mine, needs to remember it and to explain his work to his children; he needs some trace to be conserved of what was a part of his life. Industrial heritage has also has this social memory role.

Between 1970 and 2000 approximately, West Europe lived through the transition from an economy based on material asset production to one on service industry. The workers become accustomed to a new way of working characterised by the dematerialization made possible because of the computer. So the social memory role of industrial heritage has decreased and the market demand has lowered.

But a new demand is now appearing: because the use of computers is universal, people have

lost access to the reality and have difficulty in understanding what they are doing: for example, in a modern, hygienic dairy, almost nobody has a direct access to the actual milk, which becomes a "concept" in a transformation process.

Understanding the machines through the building and understanding the building through the machines remains an extraordinary tool and essential to understanding the link between yesterday and tomorrow.

*Guy Scherrer is an engineer specialized in technical history. He is working with several European technical museums on the restoration and running of historic machinery, as well as for manufacturers who want know "how is it possible today to manufacture the same product as 50 or 100 years ago with this new machine?"*

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## Intangible industrial heritage: the "Radiotelegraphy Heritage Frequency"

David Barlow

■ Maritime radio is a supreme example of how many, if not most, nations in the world have consigned the industrial heritage and associated buildings to the scrapheap of oblivion. Radio Officers on board ships in the 1950s (perhaps the peak of maritime radio activity) had books containing lists of over a thousand coast stations in virtually every major port in the world. Indeed even landlocked countries such as Switzerland had a maritime radio station in the form of Berne radio. The stations are now closed and the historically valuable wireless equipment dismantled and sold as scrap, all that is left, with one or two isolated exceptions, are photographs. The buildings are either demolished or not recoverable.

Our world industrial heritage should not only apply to buildings and machinery, books and photographs but to all our senses. With the use of wireless, or radio as it is called today, we can preserve the past in the very location where historic events took place, not a physical location but a specific radio frequency which is definable and will continue to exist for as long as time exists.

Guglielmo Marconi realised that his wireless apparatus had a very useful property in that it meant that ships could communicate with the shore without getting close to the coastline and dangerous rocks. In 1900 his company formed a subsidiary called the Marconi International Marine Communications Company which put his wireless apparatus and operators on board ships and set up shore stations to receive the signals.



The Berlin Wireless Telegraph Convention of 1906 established a frequency of 600 metres (500 kilocycles or, as it is known today, 500 kilohertz) as the international calling frequency and SOS as the distress signal.

In the following years many lives were saved by the use of SOS on 500kc/s the Titanic and Lusitania, both ships on which Marconi was booked to sail, being the most famous.

500 kHz is the one radio frequency in the entire spectrum of frequencies that can be identified as having had a specific use since wireless began, it was designated as the maritime calling and distress frequency and is still used as such in some parts of the world today. The designation of this frequency for maritime operation may come to an end at the International conference in 2010.

The UK based Radio Officers Association has the vision of 500 kilocycles becoming the "Radiotelegraphy Heritage Frequency", using Morse code as it has for the past century. The technology exists today whereby this one frequency could carry a facsimile of what happened there during the one hundred years of its operation as a maritime distress frequency. The signals sent by the Titanic and the other ships mentioned above can be recreated on the anniversary of the events. The day to day operation on the frequency as it used to be can be transmitted and received using vintage transmitters and receivers (before they are lost forever). Future generations could have a real demonstration of how maritime communications took place in the 20th century.

To make this project a reality support is needed, pressure needs to be applied on governments, communications regulators and radio organisations to enable this one frequency to be reserved as a world heritage site. We are asking for the one frequency of 500k Hz to be set aside out of a frequency range of 300kHz to 80,000,000 kHz .

It is vital that action is taken now so that members of the committees that decide the allocation of radio frequencies are aware of the importance of 500 kc/s – the life-saving frequency.

The Radio Officers Association thank TICCIH for the support already given to this campaign and hope that we can succeed in our objective of saving this frequency

## SHUT DOWN – a journey to the industrial heritage of the East

Christoph Lingg

■ Between August 2003 and December 2006, I visited around 120 different industrial sites in Albania, Azerbaijan, China, the former GDR, Kazakhstan, Croatia, Mongolia, Poland, Romania, Russia, Slovakia, the Czech Republic, Ukraine and Hungary for my project "SHUT DOWN".

My interest in the subject was not of a scientific nature, but that of a photographer. It was my aim to capture the atmosphere, the structures, the often amazing architecture, the melancholy aura of a bygone era. I was trying to make up an archive of remembrance – of markers along the way in the realm of technology, progress and decline. At the same time, I wanted to show the heart of the industrial and social history of various areas, as they reflect not only economic

A selection of images taken during the preparation of the book



developments, but also the way people related to work and to the environment, as well as the identity of different countries and regions.

Being interested and open for all types of industries, I visited textile mills, oilfields, chemical industry plants, a former torpedo factory, steelworks, sugar and fish factories, mines and former breweries.

Crumbling walls, a decaying reminder. Industrial ruins. Few other places express becoming, being and decline in a more haunting manner than closed-down factories, mines and foundries. But no matter how relentlessly deterioration and disrepair have taken over, the aesthetics and uniqueness of former workshops, tunnels and towers, of mineshafes, power plants and turbine halls are not so quickly obliterated.

It was a wonderful journey, which not only gave me the chance to see outstanding and beautiful industrial heritage, but also let me discover a number of countries and cultures then unknown to me.

The outcome is a very special book (hard bound with a metal cover), of 164 pages with text contributions by three internationally

recognized authors and more than 100 photos, which will come out this autumn. There will be a German and an English edition.

Until November 15th the publishing house offers TICCIH members a 20% discount of the regular price. The first exhibition will open in the prestigious Leopold Museum in Vienna on November 29th.

## ICOMOS AND TICCIH

### Stuart B Smith, TICCIH Secretary

■ Probable the most significant event at the General Assembly of TICCIH in London in 2000 was the formal signing of an Agreement between the Secretary General of ICOMOS and the President of TICCIH indicating that TICCIH would act as the specialist committee for ICOMOS for industrial heritage. There had been a previous collaboration agreement between the two organisations in 1985, engineered by Professor Marie Nisser, which agreed that TICCIH was a consultative body, but the 2000 Agreement went much further.

ICOMOS is the international body for the conservation of sites and monuments and one of its most important remits is to identify, nominate and monitor world heritage sites on behalf of UNESCO. Its specialist subcommittees carry out many other activities, but the world heritage role is one of particular concern to TICCIH. For many years TICCIH has encouraged the promotion of industrial world heritage sites by asking countries to form their own lists of historically important sites, and since 2000 TICCIH has been active in the production of specialised lists which can be used by ICOMOS for comparative purposes, assisted by the work of our own specialised subcommittees.

Increasingly TICCIH is involved with the evaluation of potential world heritage sites and these have included Blaenavon in South Wales, New Lanark in Scotland, Saltaire in Yorkshire, and the Derwent Valley in Derbyshire (all UK), the Zollverein coalmine in Germany, Falun mine in Sweden and the Grimeton radio station in Varberg, Sweden. In 2006, TICCIH proposed expert assessors for the Mehmed Pasa Sokolovic's Bridge in Visegrad, Bosnia, the Rideau canal, Canada, Velke Losiny hand-made paper mill in the Czech Republic, the

Iwami-Ginzan silver mine and cultural landscape, Japan, and this year for the Rhaetian Railway in the Albula / Bernina Cultural landscape in Switzerland and France. TICCIH members with a specialist knowledge should let TICCIH know of their availability to undertake this sort of mission in the future.

TICCIH has been present at General Assemblies of ICOMOS in Mexico and Madrid, has attended specialist conferences of ICOMOS in Istanbul (Turkey), Dubrovnik (Croatia), Bergen (Norway) and Edinburgh (Scotland) and on each occasion has had the opportunity to talk about the work of TICCIH and its relationship with ICOMOS.

On several occasions there have been moves by certain members of ICOMOS to form their own industrial archaeological committee, but these have been firmly rebutted by the President and Secretary General of ICOMOS.

ICOMOS has produced a report for UNESCO in 2004 on gaps in the world heritage site list which specifically mentions TICCIH as a body which might come up with new tentative lists of international sites that would merit world heritage site status. If one looks at the world heritage list, mining, textiles and iron making are quite well represented, but there are enormous gaps when it comes to power production, engineering, manufacturing and transport.

Doubters have said that they cannot understand the value of world heritage sites, and there may be some truth in this for important international monuments which are never under threat, but this certainly does not apply to many industrial sites where the badge of world heritage site status might encourage a whole category to be taken more seriously. Certainly this is true in the case of the Grimeton radio station, for instance, as the selection panel in China of UNESCO and ICOMOS experts battled for some time to understand how it could be that a building of small architectural merit full of 20th century engineering could be worthy of this distinction. However, it is the only early 20th century radio station to survive in working order and might encourage others to consider the preservation of similar sites.

TICCIH must play its part in making sure that the tremendous changes which took place in the 19th and 20th centuries are meaningfully represented on the world heritage site list.



obscurity. Some are carefully conserved and others have been mutilated or preserved in a purely representative form. The inevitable alterations that this legacy has undergone are not the same for all its different elements: there are many basically original examples of hydroelectric generating stations, compared with only a small number of classic thermal power stations, and very rare nuclear sites which are, by their nature, very difficult to conserve. Production, centralized, survives better than the linear networks of transport or distribution, which are also less evocative for the public.

The selection of the papers for publication will

## First international conference on the industrial heritage of hydroelectricity

Divonne-les-Bains (France) and Geneva (Switzerland), 7 - 9 June, 2007.

Founding of new TICCIH electricity section

### Dr Denis Varaschin and Joan Carles Alayo

■ The meeting was organised jointly by Randi Baartvedt (Norway), Joan Carles Alayo (Spain) and Florence Hachez-Leroy with Denis Varaschin (France), it welcomed researchers from Europe and America, and witnessed the launch of a new TICCIH section devoted to electricity.

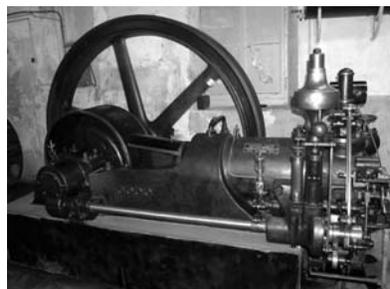
be based on the originality of the subject and their contribution to our knowledge. The congress was structured around two principal themes: 'Electrical heritage and its expansion in the world', and 'the economics of the electrical heritage'.

On the first, Sabine Nemeč-Piguet (Switzerland) introduced the importance of Ateliers de Secheron of Geneva; Andrea Giuntini (Italy) discussed the importance of the regional dimension of the electricity in Italy before the First World War; Adriaan Linters (Belgium) showed the history of the electrification in his country; and Denis Varaschin, Bénédict Frommel and Serge Paquier (France) stressed the value of the heritage of the hydroelectric power plants of the Alps and adjacent regions.

The different applications were presented by Florence Hachez-Leroy (France), who introduced one of the first uses for electricity, electrochemistry and electrometallurgy; while Christophe Bouneau (France) did the same for electrical traction.

In the second theme, the presentations ranged from the beginnings of electrification (Joan Carles Alayo, Spain) and the various possibilities for work in this ambit (Denis Derron, Switzerland), to the restoration of old hydroelectric power stations (Alain Kespy and also Gérald Vuilloud, France), without forgetting the proposals of Bernard André with respect to the CILAC and the presentation of the Museo Electropolis in Mulhouse (Claude Welty, France).

The discussions started by the papers were good, without touching all the areas of debate, and starting with the prospective field of action of the new section: should it concentrate exclusively on electricity, or electricity and other industrial sectors with which it is intimately connected, such as electrochemistry or electrometallurgy, or even open itself even further to the vast field of energy? On this question, the French members of the Fondation EDF, working with CILAC, have started to prepare an inventory of technological



Winterthur petrol engine of 1907, at the Divonne-les-Bains generating station  
© Dr Joan Carles Alayo

objects and landscapes that make up the national heritage of electricity. The first results of their work will be published in the next issue of *L'Archéologie industrielle en France* (June 2008).

Randi Baartvedt has kindly assumed the tasks of secretary of the new section (see her note on page 2). Following the meeting on the Franco Swiss border, she invited all the specialists and everyone else who works for the conservation and diffusion of this heritage to come for

another congress in 2008 which she will organise at her museum in Odda, Norway.

Two initial lines of work were proposed for the section: to locate the most important elements (electrical machines and electrical components) of the electrical heritage, and to define the electrical facilities (power stations, substations and others), that are specially significant because of their construction or technical systems. It also of course functions as a means of contact and exchange for everyone involved or interested in this growing area of study and conservation.

The Divonne conference was not only the beginning of a new section, but will be seen as a point of reference for this branch of the history of technology. The task of this congress was to make a small part of this heritage better known, and to push for its wider development. A task that, realized inside TICCIH, has a guarantee of independence and universality.

### First TICCIH UK Meeting on the International Importance of the Pontcysyllte Aqueduct and Canal

10-12 June, 2007

#### Dr Stephen Hughes

Royal Commission on the Ancient & Historical Monuments of Wales

■ The first meeting took place in June of the newly formed UK Committee of TICCIH. The occasion was a three day conference to examine the international importance of the Pontcysyllte Aqueduct, unequalled in its awe-inspiring 39 m height for 200 years and now nominated for World Heritage status. It was hosted by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) and Wrexham County Borough Council. Thomas Telford and William Jessop engineered the pioneering Pontcysyllte and Chirk Aqueducts in north-east Wales, the Caledonian Canal in Scotland and then went on to work on the Götha Canal in Sweden. Sessions were Chaired by the TICCIH President Eusebi Casanelles; the Honorary President Sir Neil Cossons; the Secretary Stuart Smith; Dr. Miles Oglethorpe, UK TICCIH National Representative, and Dr. Peter Wakelin, Secretary of the RCAHMW. Over seventy delegates attended including representatives from several other European countries.

The first working session examined the context of the Pontcysyllte Aqueduct and its canal with presentations on the Picturesque aspects of such industrial archaeological icons by the World Heritage consultant Chris Pound. He emphasised that there was no clear boundary



The canal from the air  
© RCAHMW

between the European Enlightenment and the Picturesque Movement and that the Enlightenment had helped inspire the general improvement of land with the resulting need to move lime (via canal) from the hills and mountains to the plains. The session was concluded by the first TICCIH Bulletin editor Dr. Barrie Trinder talking on Telford's road 170km (106 miles) of road through the mountains of north Wales to the port for Dublin (Holyhead), built shortly after the unification of Britain and Ireland, and possibly the most advanced road construction for its time in Europe, if not the world. By 1819 the degree of organisational management for the construction of the road was very good (a continuation of that pioneered at Pontcysyllte). The second working session dealt with the pivotal role of TICCIH in assessing industrial world heritage in conjunction with ICOMOS. ICOMOS also undertakes comparative and thematic studies in different subject areas in order to provide a context for its evaluation of potential World Heritage Sites and Landscapes. The resulting 'ICOMOS Thematic Studies for the World Heritage Convention' can be found at [www.icomos.org/studies](http://www.icomos.org/studies).

The first of the thirteen studies now completed was The International Canal Monuments List, coordinated and edited in 1996 by Dr Stephen Hughes who gave the second paper of the session. Stephen represented TICCIH at the International Canals Conference of Experts held under the auspices of UNESCO on the Rideau Canal in Canada in 1994, at which 16 experts from 10 countries hammered out a world heritage definition of canals which has allowed artificial waterways to be nominated as World Heritage Sites.

The concluding paper of the session concerned the Canal du Midi (France), the first inland waterway to be listed as a World Heritage Site, in December 1996. The presentation was given by David Edwards-May of Euromapping who put forward a case in 1988-89 for not commercially upgrading the waterway, and then in 1994 had prepared the World Heritage nomination document for the canal. The impact on usage of World Heritage designation has been complex, with a decline in commercial boating because the canal was not enlarged. However, this had been balanced by an increase in pleasure boating along the whole length of the waterway, rather than just on the Mediterranean section as previously. Perhaps the most significant impact was in the vastly greater number of pedestrians and cyclists using the now officially accessible towing-path.

The third session focused on the Pontcysyllte (Llangollen) Canal and its railways. Dr. David Gwyn spoke both on the cultural context of the canal corridor and the integrated system of horse-drawn railways feeding the canal. Susan Fielding of the RCAHMW then spoke on the application of modern digital recording techniques to the iron and stone structures of the Pontcysyllte and Chirk Aqueducts which allowed an animation of the construction process to be made.

The next working session covered the subject of large iron and steel structures. The structures of the pioneering cast-iron aqueducts at Longden-on-Tern and Pontcysyllte were compared to show the considerable structural advances that took place between the building of these two by Dr. Ron Fitzgerald. Professor John Hume examined the Telford/Jessop influence on the building of the Union Canal Aqueducts and the

internationally influential Caledonian Ship Canal. Finally Dr. Miles Oglethorpe examined another internationally known industrial archaeology icon, the Forth Railway Bridge, which has been on the UK's Tentative World Heritage List since 1999.

In the final working-session on legacy & regeneration, Peter Birch and Dr. Nigel Crowe of British Waterways examined the conservation of the Pontcysyllte Aqueduct and Canal and of the waterways of the first Industrial Revolution. And finally the potential

for regeneration in World Heritage Sites was examined in the context of the existing Blaenavon World Heritage Landscape World Heritage Officer John Rodger.

The first working meeting of the British Committee of TICCIH followed in the afternoon. It was concluded that TICCIH UK needed to work closely with existing institutions such as the Association for Industrial Archaeology and to be more proactive on influencing the assessment of the significance of potential World Heritage Sites. It was also suggested that

TICCIH needed to make use of web technology to take advantage of the potential of sharing web-browsers. Miriam McDonald of RCAHMS was appointed secretary.

The event was universally praised by those attending and has considerably raised the profile of TICCIH in the UK and has advanced the understanding of international canals archaeology. It is intended to publish the papers from the conference in the edition of the TICCIH journal *Patrimoine Industriel / Industrial Patrimony*.

## Publications

### Archéologie Industrielle en France

N° 50, June 2007, CILAC, BP 251, 56007 Vannes Cedex, France, ISSN: 0220 5521. 'Le 50e numéro... Les sheds'

■ CILAC's attractive journal celebrated its fiftieth edition, and thirtieth birthday, in June. The main feature article investigates the architectural development of the shed, the symbol par excellence (beside the chimney, of course) of the industrial landscape. Frédéric Pillet points out that the shed is not an adaptation of an older building typology but was an exclusively industrial model. The shed was born for the mechanised weaving of cotton cloth, the earliest example identified so far being from various mills in Lancashire, England, from 1829. The first French shed, though more research is needed to confirm this, was built in 1851 in Mulhouse. Flexible internal spaces and immune to problems caused by heavy vibrating machinery, the defining characteristic of the shed is



nevertheless the north light or saw-tooth roof that ensured an even and inexpensive illumination of the interior. With the 'controlled conditions' developed for armaments factories in America in the second world war, natural illumination became less important, as a result of which the shoe-box has largely replaced the shed as the model for the modern factory.

Elsewhere in the magazine, Bernard André reports on the conference on the heritage of the electricity industry (see page 6), pointing to the invisibility of the product, the opacity of the machines – turbines, dynamos, alternators – and the emptiness of the grand spaces for the relative absence of electricity from the realm of industrial heritage around the world. (See page 1 on the founding of a TICCIH electricity section at the meeting).

For historians of industrial history, the magazine reprints Maurice Dumas' article in the first issue of *Archéologie Industrielle en France*, while an interview with another of the founding fathers of French industrial archaeology, Louis Bergeron, reflects on the history of CILAC, the divergence of industrial archaeologists from the historians of technology in the 1970s, and the emergence of a distinction between industrial archaeology and industrial heritage – the first an instrument for scientific discovery which permits the identification of an industrial heritage based, it is to be hoped, on proper historical understanding.

Finally, issue number 50 runs a summary of all the issues published since the magazine adopted a lively style in 1995, with photos of the 25 colourful covers.

### Industrial tourism programme

■ XATIC is the acronym of the Catalan Industrial Tourism Network, an association set up in February 2006 consisting of 19 extremely diverse municipalities from all over the country. What they do have in common is an important and varied industrial legacy that tells the story of the industrial revolution which transformed the land and society of contemporary Catalonia. The mission of this network of municipalities is to generate a common line of action as a means of attracting visitors and creating economic and cultural activities based on industrial tourism. In this respect the member municipalities, with the support of the National Museum of Science and

Technology of Catalonia (MNACTEC), are working together to put in place a Tourism Development Plan for Industrial Tourism and Technological Innovation.

This is a cultural tourism programme designed to shape, organise and promote industrial heritage and living industry. It will achieve this by setting up a new industrial tourism proposal which enhances, differentiates and diversifies the country's tourism offer. The has a budget of €1.5 m and is funded in equal shares by the Ministry of Industry, Tourism and Trade, the Government of Catalonia and the local member councils.

Industrial tourism is still little known in Catalonia, unlike in other places where it is already a consolidated tourism product. In countries such as the United Kingdom,

Germany and France, both industrial heritage and active industry are a part of the normal range of tourism offers with high recognition levels and excellent visitor figures. Some industrial tourism attractions have turned into major tourism sites, such as Ironbridge in the UK, while there have even been cases, for instance the Guinness Storehouse in Ireland, in which they have become a country's most visited tourist attraction.

An example of the range of programmes being developed by XATIC is the specialist course directed at tourist professionals called "Tourism, industrial heritage and living industry" running this autumn. The XATIC website has information in Spanish and English. [www.xatic.cat/index.php](http://www.xatic.cat/index.php)

## World Conferences

See the TICCIH web page for full conference news.

### The Netherlands

#### Fifth Annual Conference of the International Association for the History of Transport, Traffic & Mobility

Helmond, 25 – 28 October 2007

■ Organized by the European Centre for Mobility Documentation supported by the city of Helmond. Conference info: [www.t2m.org/en/](http://www.t2m.org/en/)

### Finland

#### Joint international conference between TICCIH and ICOHTEC, the society for the history of technology

Tampere, 2010

■ Planning for this conference has just begun, following a proposal from the Museum Centre Vapriikki ([www.tampere.fi/english/vapriikki/index.html](http://www.tampere.fi/english/vapriikki/index.html)).