Industrial heritage as understood in the western world is little recognized and appreciated in the Indian context. Reasons could be many, like continuation of the same industrial processes as living traditions till today and also a history of colonialism, where most of the manifestations of this heritage represents oppression and slavery. India being the ‘Jewel in the Crown’ of the British empire was surely embellished with technological advancements that were happening in Europe as part of the ‘Industrial Revolution’.

Thus we have a variety of industrial heritage mostly from the mid-19th century, historic mills processing cotton, wool, indigo, salt, spices, iron and tea. Other advancements like the railways, communication and electricity. The railway network was one of the most extensive covering much of the country, and it still is. In fact most of these have been in continuous use till this date. This lead to the development of industrial centers all over the country, prominent among them being Bombay, Ahmedabad, Surat, Kanpur and Calcutta.

India gained independence in 1947 and most of these ‘industries’ came under the ownership of the government. Since then there has been a decline in production and heavy losses by these industries. Most industrial towns were also transformed into dense residential areas and are being de-industrialized due to pollution they generate as well as their prime location within the towns and city. Unfortunately instead of conserving or looking at sensitive alternatives most of the industrial land is cleared for real estate development.

Industries which survive have also gone ahead and changed drastically, discarding the old meanwhile loosing precious heritage.

Today the industrial heritage lies unprotected and threatened with very little hope for conservation. This is mostly due to lack of awareness regarding the significance of this cultural resource, as well as lack of any legislations or policies and institution for the protection of Industrial Heritage. With the exception of the Darjeeling Himalayan Railways, which is now a World Heritage site, no other site has even minimum of protection from the developers and other forces.

In this scenario there is urgent need to address the plight of industrial heritage and come up with sensitive policies towards their protection and development in the changing socio-economic context.

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Board meeting. Almost all the Trustees were able to travel to Barcelona for the meeting on 7 June to discuss a healthy financial situation and a full diary of conferences in which TICCIH is involved for the next two or three years. Enough people responded to the membership invoices, sent out in February, for our income to show a sharp improvement on previous years, while the online membership form on the TICCIH webpage has been a consistent source of new members. Indeed, the significance of the webpage for organisations like ours led the Board to decide to commission a review of how it could be improved (see below). A travel bursary to help with costs of attending TICCIH meetings and a prize were two other initiatives that will be presented by the Treasurer in a new three-year budget, one that will also contribute to the costs of the Bulletin and hosting the website, which have been carried up till now by the Museu de la Ciència i de la Tècnica de Catalunya. During this year there are conferences under TICCIH’s umbrella in Rumania, Denmark, Slovenia, Croatia, Peru, Germany and Spain, while there is already planned an intermediate conference in Japan next year as well as meetings in Norway, Poland and Romania. The next summit for the textile sector will be in Portugal where, after several years, there is now just one organisation representing the country’s industrial heritage community.

Eugene Logunov from Russia reported on the preparation of the results of the Moscow conference last year, and hopes to have both the conference proceedings and the National Reports ready in the autumn. Preparations for the intermediate conferences in Peru and Japan are going ahead, and the next meeting of the Board will be at the Japan meeting next year, in Nagoya. Finally the Board determined to continue to strengthen TICCIH’s ties with ICOMOS, for which we are the specialist adviser on industrial heritage.

National Representatives’ meeting. The Board stayed on for the meeting of National Representatives and Correspondents from twenty countries (Australia, Austria, Belgium, Chile, Croatia, Denmark, France, Germany, Great Britain, Greece, Holland, Hungary, Ireland, Italy, Norway, Mexico, Portugal, Romania, Russia, Spain and the USA) on the following two days. The meeting was held within the Forum Barcelona 2004 and at the Museu de la Ciencia i de la Tècnica de Catalunya. Various initiatives were announced for new specialist sections, the delegate from Chile hopes to launch one devoted to restoration, the Russian Representative, though unable to attend in person, announced plans for another for the iron and steel industry, and an industrial museum section is on the agenda of the International Symposium in Oberhausen and Dortmund in June (Conference Report next issue).

The longest discussion was, as in previous meetings, over the organisation’s fundamental structure. Largely for historical reasons TICCIH is both a federation of national industrial archaeology organisations and an association made up of individual and corporate members. Some countries have one structure and others another, or neither. The Board examined various formulas that would resolve the contradictions and allow individual members to have a say in the choice of their National Representative. At the end, the President presented a proposal to the meeting that will be circulated before the summer to try and resolve this issue. The full minutes of the meeting will be posted on the webpage in due course.

TICCIH Webpage redesign
Suggestions for improvements or, even better, direct help extending the webpage and making it more agile are more than welcome, and anyone who would like to help should contact the Editor. Among the suggestions for more content are an electronic news sheet to be sent out to members to complement the Bulletin, an area in which discussion forums could be held, and separate sections for each country.

Congress 2006: Terni, Italy. There were two proposals to hold the next congress. One from Germany was developed by Professor Albrecht of the Institute for the History of Science and Technology (IWTG) at the Technical University of Freiberg/Saxony, and the other from Italy by Professor Luigi Fontana of the Associazione Italiana per il Patrimonio Archeologico Industriale. After eloquent presentations by the German Representative Michael Mender and by Prof Fontana’s substitute, Professor Augusto Vitale, the very close decision gave the 2006 conference to the Italian team. There is a summary of the Italian proposal in the section Worldwide. The meeting thanked Professor Albrecht for the work of putting together his proposal, and expressed the hope that the very interesting conference could be either a future intermediate conference or even form the 2009 TICCIH meeting. There is a summary of the Italian proposal in the section Worldwide. TICCIH webpage.
The Claybank Brick Plant is arguably the most complete turn-of-the-20th century brick plant in the world, a remarkably intact example of our industrial heritage.

During the late-19th and early-20th centuries thousands of small and large brick factories were established throughout North America for a rapidly growing and increasingly urban population. Many such factories – called brick works or brick plants – were small family operations utilizing hand-moulded production and scove kiln firing processes. These facilities generally operated only a few years, and are poorly documented and virtually no physical evidence of their existence remains.

Larger brick factories incorporated the most up-to-date technologies, equipment and buildings. Designed by professional engineers and funded by major financial backers, these had the potential for long-term operation. The Claybank Brick Plant, situated near Regina, Saskatchewan (about 140 km north of the Canada - USA border), was one of these. Although only of moderate size, accommodating 10 brick kilns, it remained operational for 75 years and manufactured both face and fire bricks. Since its closure in 1989, major efforts have been made by local residents, the Province of Saskatchewan and Government of Canada to preserve this important industrial heritage site.

It is believed that the clays at this site have been used by the First Nation peoples of the region for many hundreds of years, for either medicinal or utilitarian purposes. In 1886 they were recognized for their refractory and face brick properties and the Brick Plant was constructed between 1912 and 1914. Operating from 1916 as the "Dominion Fire Brick and Pottery Company", it was a state-of-the-art brick factory with six down-draft kilns, staff housing, a machine shop, and a stock shed for storage of the finished products.

In the mid-1920s, it secured the lucrative contracts to provide fire brick for Canadian National Railway and Canadian Pacific Railway locomotives and between 1918 and 1937 the Company increased its brick firing kilns from 6 to 10. The Brick Plant now employed about 40 people during peak operating months.

For much of the 20th century, fire brick was a key component for any enterprise which relied on steam boilers and the demand for refractory (fire) brick was steady until World War II. To supply the high demand for fire brick in the boilers at the newly-constructed British Commonwealth Air Training Program bases across western Canada, and for the navy ships built in East and West coast shipyards, production at Claybank actually increased. After the War production began to wane as new synthetic products in the construction industry began to affect the demand for face brick. The introduction of diesel engines all but eliminated the need for locomotive refractory bricks.
In June 1989, A.P. Green Refectories Ltd. - the multinational fire brick manufacturing company which had acquired the Claybank Brick Plant in 1971 - closed it down. With a dwindling market, a now out-dated production line and facility at Claybank, and the North American Free Trade Agreement in place, the Company no longer needed this Plant to manufacture or sell in Canada. In 1992, A.P. Green formally donated Claybank to the Saskatchewan Heritage Foundation, and efforts to stabilize the aging and deteriorating structures began. Two years later the brick factory was designated as a National Historic Site of Canada, and a Claybank Brick Plant Historical Society was organized to promote the site and assist in the procurement of restoration funds. A program of repairs was initiated in 1996, and between 1997 and 2003 Parks Canada contributed $1 million on a cost-shared basis. In 2002, the derelict Bunk House was rehabilited as a Visitor Centre and much documentary material has been preserved including over 50 oral history interviews. Although over $2.5 million has been spent, significant additional funding is required. The Government of Saskatchewan has asked that the site be nominated by Parks Canada for designation as a World Heritage Site. The rationale for this recognition is summarized as follows: The Claybank Brick Plant is one of the best early 20th century North American examples of the unique engineering technology necessary to mass-produce bricks for both the construction and manufacturing industry. Its high quality face and refractory (fire) bricks were distributed primarily in Canada and the United States, to address the rapidly increasing demand for such products during an era of unprecedented increase in settlement and industrialization throughout the New World. Other sites with which Claybank has been compared include: Kilgard (Sumas) Brick Plant in Abbotsford, British Columbia, D’Hannis Brick Plant in D’Hannis, Texas, Oak Farm Brickworks, England, Glen Innes Brickworks in Australia, Van Oordt Steenfabriek (Brickworks), Netherlands, Jokela Brick Factory in Finland, Nivaagaard Brick Works, Denmark, Mildenberg’s Technology Museum and the Westphalia Industrial Museum, Germany.

The author was until recently Research and Restoration Advisor with the Saskatchewan Heritage Foundation.

In the Crichton-Vulcan shipyard in the City of Turku well over a thousand vessels were built since the year 1867. In the 1970’s production declined and a new use was sought for the area. There were two large shipyard halls built in 1928 and an exceptionally narrow-framed, 270 metres long rope factory from the year 1934. Especially the latter building’s application in reuse had long been seen as a difficult, well-nigh impossible challenge. The construction of the shipyard halls is based on the riveted truss structure typical of the era.

Laiho-Pulkkinen-Raunio Architects were assigned the task of designing premises for the culture unit of Turku Polytechnic in the old buildings. One of the two shipyard halls and part of the rope factory were converted into educational premises for Turku Conservatory in 1994, renovation of the other hall was completed in 1996 for the use of Turku Drawing School and the Turku School of Art and Communications. The space between the shipyard halls was moulded into a public market square where even quite massive outdoor happenings can be arranged. The long functionalistic cableway building designed by Gunnar Wahlroos joins the different departments and units both symbolically and functionally together.

The designers have succeeded in creating fresh and inspiring premises for educational and performing purposes in the old, brutal factory milieu. The marks and the atmosphere left by the old time labour are deliberately present in the new architecture. Inside the factory hall the old steel structure remains honestly visible, its rugged surface is not bashful of its past. Also the original bridge cranes of the shipyard have been preserved as elements of the indoor space: they support the foyer’s steely half landing and simultaneously create an original, historic milieu for the restaurant space. At the halls’ gables opening to the square modern lightweight steel truss structures support large surfaces of glass. Inside the hall in the middle — as a building within a building — there is a transparent concert hall.

The rope factory is an example of how, through decent design, an old, neglected and at times even repudiated industrial environment can add value to new cultural institutions.

Music in a shipyard hall - art in a rope factory
Tuija Mikonen
Rijeka is the main Croatian port on the Adriatic sea. It is the centre of diverse industrial activities and at different times in its history was one of the most industrialised parts of this European region. The last decade has not been easy for many countries in this “transitional” time. The same has happened in Croatia and many traditional industries in Rijeka also had problems. Several industries with more than a hundred years of successful life fell into business troubles and eventually went bankrupt. This also happened with one of the oldest and most famous factories in Rijeka, the “Torpedo” factory.

In 2003 it was the 150 years since the beginning of the first torpedo factory on the world. It started as a metal foundry and shipyard, and from 1866 it started to produce “fish torpedoes”. Giovanni Luppis, who was born in Rijeka, originated the first idea about Rijeka’s torpedo, and the final form of this new naval weapon was finalised by Robert Whitehead, an English engineer who worked in the foundry. The life of Rijeka’s torpedo factory had its ups and downs, but for many years it was the best in the world and the Luppis-Whitehead type of torpedo made in Rijeka was the main underwater weapon for all world navies. Many new technologies started here, including high-pressure technology, the first use of the gyroscope, systematic research and development of new products and so on.

Torpedoes have not been produced in the Rijeka “Torpedo” factory since the 1960s. It made diesel engines, lorries and many other items, and in last ten years it ceased almost all industrial activity.

In the mind of the citizens of Rijeka, the torpedo factory still has great impact. Many of them worked there and the memory of the prosperous and famous factory years are still alive. A few years ago, a group of Rijeka’s “enthusiasts” started an “ad hoc” Committee for the renovation of the torpedo museum in Rijeka, and after some preparations they organised the 1st Conference on Industrial Heritage in Croatia on the occasion of the 150th anniversary of the torpedo factory, supported by the City of Rijeka and the University of Rijeka.

The Conference was held in Rijeka Town Hall, it lasted two days, and it there were more then 120 participants. 40 papers were presented at the conference by torpedo and industrial heritage experts from twelve countries, from Europe and USA. The highlight of the Conference was the tour of Rijeka industrial heritage, on a beautiful afternoon day, all the participants visited by boat the port of Rijeka, and later by bus the torpedo factory, sugar refinery, paper mill and communal facilities. And in the evening in the abandoned torpedo factory halls a gala concert was held, at which more than 1500 people attended the performance of Beethoven’s 3rd Symphony “Eroica” produced by Rijeka Philharmonic Orchestra.

The Conference papers will be printed in Conference Proceedings, and the next 2nd industrial heritage conference will be in May 2005. After the Conference in Rijeka, a society was organised for promoting and protecting Rijeka’s industrial heritage. There are 25 members, and the number is still growing. Now there is a little more chance of protecting some of Rijeka’s industrial heritage, a part of the world’s industrial heritage.
This second meeting built on the previous work of the TICCIH Coalmines Section which had endorsed the TICCIH Coalmines Study, produced for the World Heritage Office of ICOMOS, at its meeting in Cardiff in 2000.

The Velenje meeting started with a working session which established the basis for an international database of mines. It was decided to extend the remit of the section to include quarries to avoid confusion over terminology. The database is being taken forward by the Section’s Secretary, Dr. Miles Oglethorpe of the Royal Commission on the Ancient and Historical Monuments of Scotland. The present TICCIH Mines Section Committee was confirmed.

The Mining Museum at Velenje was established in the late 1990s and is one of the responsibilities of Pieter Pusnik, co-organiser with Suzana Fajmut Strucl, Director of the Melita Lead & Zinc Mining Museum (see below) of what was an excellent conference.

The seam of lignite at Velenje is said to be the thickest seam of coal in the world, measuring up to 150 metres. There are no less than ninety kilometres of tunnel in the working mine and the museum galleries make up three of them. Here delegates were given hot sausages and rolls in the miners’ former underground canteen. The interpretation in the mine is modern, with a multi-screen presentation and a series of tableau of figures known from the documentation of the mine. There are simulated mine explosions and the use of three contemporary forms of mine transport: the man conveyor, an adapted ski lift, and a mine railway.

The Museum also raises other issues. There is a growing number of industrial museums which depend on associated commercial enterprises and this is especially true when a mining museum depends for its water-pumping, maintenance and mine-rescue on an adjacent active mine. At Velenje the active mine to which the museum is connected could continue for another sixty years, its four million tonnes annual output of the mine ascending to the surface via a sloping drift tunnel and conveyor to the enormous power-station alongside. But this is due to close in twenty-five years, and the museum is considering how the surface exhibition can be augmented to include shallow underground simulated galleries to compensate for the probable loss of the present deep museum mine galleries. In the afternoon there was a trip towards the Austrian border and the Peca lead mining museum at Melica. The first stop was the former concentrating-mills which lay at the end of a long tunnel leading from the main mines and centralised ore-treatment in the period 1920-70. These take the usual form of such installations with roofed hillside terraces with gravity-fed ore descending from the top and the installation now being used for the treatment of mine waste. This museum was fortunate in taking over an active industrial installation and so it is possible to convey visitors deep into the mine on an electric railway in windowless wooden carriages. The core of the museum now includes a large series of mill buildings on either side of the stream which contain sets of iron-forging, sawing, flour-milling and fulling machinery from various locations throughout Slovenia.

Papers presented at the Technical Museum of Slovenia at Bistra included reports on the inventory project of the outstanding monuments of the Ruhr Coalfield; the diffusion of central European mining practice to royal silver mines in south-western England; and the increasing instances of prehistoric mines in Wales being revealed on apparently nineteenth-century non-ferrous mines by archaeological excavation and aerial reconnaissance of mining sites. The TICCIH President, Eusebi Casanelles, gave a presentation on the new lead mine museum Bellmunt del Priorat in Catalonia, and the section Secretary also gave a presentation on the Scottish coal industry with spectacular 1930s modern-style miners’ baths designed by an Austrian architect.

On the final day we visited the classic mining site of the Idrija mercury mine. Mercury was discovered here in 1500 and the mine has only recently closed with the collapse in mercury prices, and the commercial workings are being backfilled. Its international importance is as an outstanding example of the period when Central European mines pioneered the technical development and international practice. It shares professional, specialist and administrative staff with another famous mining complex of the Austrian Empire at Banska Stavinika, now a World Heritage Site, in Slovakia. However, Idrija is arguably of greater importance in retaining access to early underground features and structures and items of large and significant mining machinery. It was also one of the largest mercury mines in the world and has until recently been the second-largest source in Europe — after Almadén in Spain.

The second mines meeting was significant for establishing the way to take the study of mines forward, for discussing sites from around the world and for seeing some outstanding sites in a very beautiful and hospitable country.
Australia

Clare Schulz

Information is sought regarding extant large thermal power stations dating up to the 1920s that retain plant and equipment in situ, to provide comparative evidence for research relating to East Perth Power Station, Australia (shown in two views below). If anyone is able to assist with this project, please contact Clare Schulz, (Conservation Officer - Assessments) at the Heritage Council of Western Australia; PO Box 6201 East Perth WA 6892 AUSTRALIA; ph. 61-8-9220 4149 fax 61-8-9221 4151; cschulz@hc.wa.gov.au

East Perth Power Station
Photo: Heritage Council of Western Australia

Luxembourg

The Belval blast furnaces in southern Luxembourg were a symbol of the Grand Duchy during the 20th century, in a sector which provided work for 30,000 people. Rationalisation within Arcelor, formed by the merger of the French Ursinor, Spanish Aceralia and Luxembourg Arbed steel-makers and now the world's number one steel company, has shrunk this to just 3,000. Now the Agora project looks to convert part of the old, polluted steel works into a showcase for steel construction. The project follows the example of the revitalisation of heavy industrial areas such as the Ruhr, the Belgian coal fields and the paramount example of Bilbao, where the Guggenheim has propelled forward the regeneration of the city and its whole region. Two blast furnaces and their associated works will become a museum to interpret the site's historic activity, and a Science City will represent the change from traditional to high technology in the local economy.

United States

Mary Habstritt


The tour coincided with the bicentennial of the expedition of Lewis and Clark, the first Europeans to arrive in the area. These explorers were followed by fur trappers and traders and a visit to Fort Union Trading Post, built by the American Fur Company in 1828 and now a national park, recognized this. The Great Northern Railroad opened the area to settlement in the late 19th century. However, the arid agricultural area of the Montana-North Dakota border was not successfully developed until the 20th century when the Yellowstone Irrigation Project diverted river water for farming, and new crops, such as sugar beets, were introduced, and small truck farms were consolidated into large, more economically viable, ranches covering hundreds of acres. Businesses that processed agricultural products followed. The 60 attendees visited Sidney Sugars, a sugar beet refinery, and Montola Growers' oilseed pressing plant where oil is produced from safflower and other seeds. A visit to the Threshing Bee in Culbertson offered the opportunity to see antique farming machinery in use. Petroleum is also a local product, pumped from the Williston Basin which boomed in the 1950s and again in the 1970s. Much of the oil now comes from individual pumps operated by ranchers as a sideline to their cattle and crop farming. The tour visited one of these and heard a lecture on drilling. Another stop was the Poplar Industrial Park which houses small industries owned by the Fort Peck Assiniboine and Sioux Tribes providing much-needed employment making components for automobile and military systems to Native Americans on the reservation. Fort Peck Dam, a gigantic hydroelectric project of the federal government, built during the 1930s on the Missouri River, was a highlight. The tour was an impressive introduction to the industrial development that can be accomplished on the remote and sparsely populated High Plains.
from the West to the East (especially Japan) and its Impact on the Industrial Heritage; The Preservation of Industrial Cultural Assets and their Use as a Tourism Resource. The proposed dates will include two days of meetings and one full day of excursions, a chance to visit the Expo site, and there are a number of one and two-night post-conference tours planned. Official languages Japanese and English.

Nagoya Congress Center, Nagoya/Aichi, 1-1, Abuta-nishinmachi, Abuta-ku, Nagoya, 466-0036 Aichi / Japan

Tel. +81 52 683 7771
Fax. +81 52 683 7777

www.unet.city.nagoya.jp/ncc/

Postponed until 2005

Industrial Heritage – Contemporary Challenges: De-industrialisation - Approaches to Contemporary Industries, Stavanger September 2005

Great Britain

AIA Annual conference
University of Hertfordshire, at Hatfield, Herts
13-15 August, 2004

Call for papers

The scientific programme will include international and Romanian speakers on the identification of industrial monuments, re-use options, emergency interventions, and national and international strategies for endangered heritage.

Contact: Irina Iamandescu, Romanian National Representative, Romanian Ministry for Cultural Affairs, Directorate for Historic Monuments and Museums, Sos. Kiseleff 30, Bucharest sector 1, 011347, O P. 33, irina.iamandescu@cultura.ro, T: +40 21 224 4421

Spain

IV Conference on industrial heritage, Sociedad Española para el Patrimonio Industrial TICCH España, Museo de la Ciencia y de la Técnica de Cataluña, Terrassa 20-24 October, 2004

Call for papers

The re-launch of the Spanish association for industrial archaeology coincides with 200th birthday celebrations of the Museo de la Ciencia y de la Técnica de Cataluña, which will host the meeting. Paper sessions as well as pre- and post-conference visits to local sites including the Colonía Sedó, the Ailand cement factory and converted industrial sites in Barcelona.

Contact: Marta Vidal, Asociació del Museu de la Ciencia i de la Tècnica d’Arqueologia Industrial de Catalunya T: 93 780 37 87, F: 93 780 60 89 asociacionscaltic@ieic.ticnet.es www.mnactec.com/ticcih/Sp www.amtac.org

France

30 years of industrial heritage in France, Communauté Le Creusot-Montceau 23-26 September, 2004

Call for papers

Patrimoine industriel et territoire: enjeu et réalisation. The French industrial heritage society CILAC celebrates its 20th anniversary with a conference to reflect on progress in inventories, understanding, and the material evidence for the industrial civilisation. Official language: French.

Contact: Simone Jander, 36, rue Chabat flurry, 21000 Dijon, T: 03 8058 9639, F: 03 8058 9686, Simone.Jander@u-bourgogne.fr www.cilac.com/

Publications

On the Rails – Two Centuries of Railways
Anthony Burton
Aurum Press, 25 Bedford Avenue
London WC1B 3AT, 2004

ISBN 1 85410 981 2

£20

Written by a very well known author and TV presenter, based on the Discovery Channel TV series, this is a beautiful book about railways written for the non-specialist and specialist alike.

With a truly international approach it has 207 pages profusely illustrated, mainly in colour, covering most aspects of railway operation. It is particularly strong on the early years and then covers the next two centuries in great detail. There are chapters on engineering, continental travel, the development of coal wagons to wagons-lits, and chapters on safety, including signalling, and the development of speed and power.

This is exactly the sort of book that anyone who wants a general overview of the history of railway development should be pleased to add to their shelves.

Stuart B. Smith, OBE