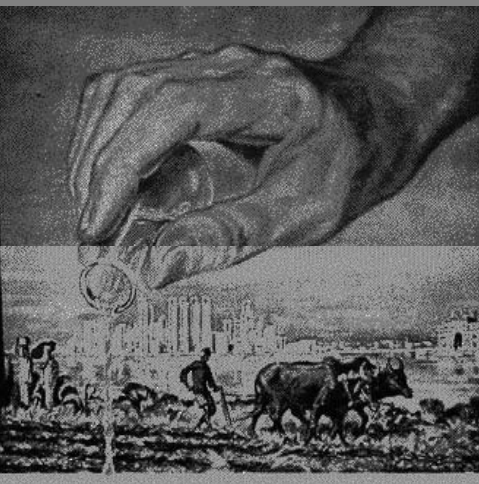




THE INTERNATIONAL  
COMMITTEE FOR THE  
CONSERVATION  
OF THE INDUSTRIAL  
HERITAGE

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Poster advertising the contribution of the Union Carbide pesticides to rural Indian development

## number 43

Winter, 2008

**Inside:**  
Trains, stations  
and railways

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MUSEU DE LA  
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■ As I write this, the abandoned site of Union Carbide in Bhopal is getting cleaned of its thousands of tones of chemical contamination. This year, the city of Bhopal may finally rid itself of its toxic legacy.

It is difficult to believe, let alone rationalize, that it has taken us twenty-five years to embark on the task of cleansing this blighted landscape, the site of such a huge industrial catastrophe. In operation since 1973, this magnificent structure was the largest alpha-naphthol plant of this design anywhere in the world. The factory produced agricultural pesticides with a promise of a 'greener and better India' and used hazardous chemicals like phosgene, chlorine and methyl isocyanate that lay stocked in abundance at the site. Today, apart from some angry graffiti scribbled on its walls, there seems to be no visible link between the dilapidated structure and what some call the worst industrial disaster in history. The factory premises still have papers, uniforms, files, furniture strewn around, abandoned in haste, frozen in time. The structure of the magnificent factory has been left to rot - an unceremonious death for the grandiose scheme that once stood as a symbol of 'modern industrial' India.

Unfortunately the story of Bhopal - an important chapter in India's modern history - is plagued by many such clichés and ironies. The ongoing task of decontaminating the factory site is an overdue and unavoidable step towards the remediation of this landscape. The fractured mindscape of the city, however, needs something more. Something that not only makes it cleaner in body and spirit but also resurrects its lost faith in science and industry. And what we do for the soul of Bhopal will not only set the precedent of our society coming to terms with loss and injustice but also its ability to creatively harness this angst into a testimonial for generations to learn from. Our pluralistic society needs to establish one visible icon that would clearly and (most importantly) non-religiously represent the story of Bhopal.

However as I write this, in guise of cleaning and decontamination, we are losing this piece of history from Bhopal.

The story of Bhopal raises more questions than answers. For many people, the factory site is a grim souvenir of the tragedy and for the State a constant reminder of its burden. Two decades of debate on Bhopal have failed to raise some real issues - what does Bhopal represent to us and how to acknowledge these bad memories through conservation as an act of social catharsis. Moreover, the fate of this historic structure remains beleaguered by the conventional notions of 'heritage', its depressing associations and of course the ease with which it lends itself to rudimentary cleaning techniques of dismantle and dump. It becomes impossible then not only to question our appetite for destruction but our annoying stubbornness to continue living on the very edge of development and disaster. The machine as symbol, as meaning has not been understood. As a result we always end up looking at what happened in Bhopal or what we can do in Bhopal but not at what Bhopal is saying about our society.

Justice to history and memory at Bhopal will not be served till we acknowledge the loss and preserve the remains of the site for remembrance and learning. Over the last few years, my office

cont. p. 8

## Opinion

**Moulshri Joshi**  
Architect, Space Matters

### The case for salvaging the remains of the world's worst industrial disaster at Bhopal, India



The Union Carbide plant in its glory days. Photo: Five Past Midnight in Bhopal by Dominique Lapiere & Javier Moro. And in 2005. Foto: Space Matters

## ■ Membership 2009

This is the first year it has been possible to pay our membership fees directly with a credit card, through our Paypal account. Please remember to go online to the TICCIH website and renew your membership, and save TICCIH the work of sending out reminders.

Remember that registration for the Freiberg congress in August is 300€ for members and 350€ non-members. If you're not sure if you are a current member, look for your name in the Directory of Members on our web site or write to [ticch@gencat.cat](mailto:ticch@gencat.cat).

## ■ TICCIH XIV in Freiberg

Arrangements go on for the XIV congress in Freiberg. The deadline for paper proposals has passed and the organisers are sifting through the many submissions to come up with the definitive programme. Everything suggests that an outstanding meeting is being prepared which, for the first time since 2006, will bring together everyone concerned for the archaeology of industry, in its numerous forms, in a region with a particularly rich heritage.

The special accommodation offer ends on March 31. Deadline for Final Registration is May 30th, as it is for application for the 26 Scholarships and the Travel Grants for low-income participants without financial support, and binding reservations for the pre- and post-congress tours. Many of the great names of German industrial archaeology are guiding tours to Berlin, the Ruhr region, Saxony and Upper and Lower Silesia.

## ■ 1/125 of a Second

One of the sessions proposed for Freiberg is on 'Photography and the Industrial Heritage'. It is by Jan af Geijerstam: 'The history of photography is intimately and directly tied to industrialisation and to the development of industrial society. Historians in general have been sceptical about the use of visual media and photographs are often limited to illustrations. The primacy of the written word

remains uncontested, seldom letting images into an active dialogue. And this is paralleled by an all too often neglect of the archival safeguarding of photographic evidence from the past.

The title, "1/125 of a second – photography and the industrial heritage", is a paraphrase of an essay by the Swedish documentary photographer Sune Jonsson. He stressed the deep interconnection between knowledge and documentary photography, both in the moment of the making of the photographs and in their later interpretation.'

## ■ Industrial and engineering heritage

After their seminar on engineering heritage in Newcastle, UK, this summer (see TICCIH Bulletin #42) several Europa Nostra (EN) members are proposing an Industrial and Engineering Heritage Task Force to coordinate and reinforce actions in favour of the industrial and engineering heritage.

EN already has two important pan-European players in the field of Industrial/Engineering Heritage – Fedecrail, the European Federation of Museum & Tourist Railways, and European Maritime Heritage – and its importance was highlighted in recently adopted Europa Nostra Strategic Plan 2008-2010 under the main theme "Heritage Conservation, Interpretation and Management".

Among the objectives of the IIHTF are to create an effective and visible Industrial and Engineering Heritage platform within EN, to start mapping out the relevant bodies that are dealing with this heritage and to develop exchanges with professional Industrial/Engineering Heritage organisations outside EN – and Europe - in order to identify the most urgent topics in the field of site management and conservation. , with a view to translating them into policy recommendations (including links with environmental policies) as well as campaigning for the preservation of specific buildings it identified, as was the case with Thurn & Taxis Warehouses. This idea is being developed by Dr Pierre Laconte, President of

ISOCARP and the TICCIH President is following the proposal.

## ■ National Representatives and Correspondents

Elections for the new German National Representative were held by TICCIH Germany on November 9, 2008 in Bochum. Norbert Tempel was chosen and the Secretary is Alexander Kierdorf. Together they are the editors of the German National Report that will be published this summer at the Freiberg Congress.

Alter three years as president of TICCIH Argentina, Graciela María Visuales has passed the responsibility to the Cordoba architect Laura Amarilla. The Argentine committee elected Laura as the new president with effect from the beginning of this year. She is organising the second meeting on the agro-industrial heritage in her home city in November.

Finally we have for the first time a Correspondent in Morocco. He is Saadia Bahaj, Chef de service, Direction du Controle et de la Prevention des Risques, Département de l'Energie et des Mines. And also in Colombia: Andrés Satizába, whose address is Taller del territorio, I v. Universidad de los andes, Bogota, Colombia, [asatizabalvillegas@hotmail.com](mailto:asatizabalvillegas@hotmail.com)

■ The Electricity Thematic Section is arranging a Working Session in the summer at the Museu de la Ciència i de la Tècnica de Catalunya in Terrassa, Spain to discuss the methodology it will develop to draw up its register of historic electric and electrochemical sites, and to define the criteria for making a general catalogue of this heritage. They plan to present this at the TICCIH meeting in Germany. The final dates to be announced on the TICCIH web site.

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.

**Editor:** Articles and news of recent and future events should be sent to the Editor, James Douet, Museu de la Ciència i de la Tècnica de Catalunya, Rambla d'Egara, 270, 08221 Terrassa, Spain, [ticch@gencat.net](mailto:ticch@gencat.net).

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■ The 'Inventaire' seems to be a French adventure of the glorious after-war period, with no match, if no lesser results, in other countries. The concept was brought forward by the prominent historian of art André Chastel at the beginning of the 1960's and began its official career in 1964, when ministry of Culture André Malraux instituted a 'commission' in charge of 'the complete inventory of the monuments and works of art in France'. First a State administration with an office in each of the French 23 'régions', the 'inventory service of cultural heritage' is since 2004 onwards in the hands of 23 regional services, financed and led by the regions. All researchers follow the same method, elaborated in the State administration, including the publication of their research in the way of normalised summaries and high quality photographs on databases open to the public. The research focuses on a comprehensive history of each site, based on archival material, and a careful description of its material components or the tracks left over by former structures. True to the spirit of its founders, which intimated inventory researchers to deal with the whole of the national heritage "from the coffee spoon to the cathedral" on any part of the territory, researchers in charge took several decades to take stock of the national heritage. With time new interests came to the fore and industrial heritage has become a prominent topic from the mid-1980's onwards, when more recent heritage (the late 19th and 20th centuries' one) was also given due attention. (See [www.culture.gouv.fr/culture/inventai/patrimoine](http://www.culture.gouv.fr/culture/inventai/patrimoine))

The main challenge encountered by the 'inventory' method is today unquestionably the heritage of transport networks and this for several converging causes. First, networks are made of linear segments where the same items are repeated, items which wouldn't 'deserve' by their own technical, historical or artistic value a full description, would they not be a part of a greater coordinated system. Secondly, full capacities in technology, history of technology and the functioning of canals, railways, overhead power lines, etc., are demanded for describing the items under study. Third, networks may spread over several regions and their study involves several regional offices which have to cooperate and harmonize their research programmes. Finally, the files regarding each item (e.g. a bridge, a lock, a lockkeeper house, a signal in the case of canals) have to be organized in a structure which gives a true image of the network instead of a collection of scattered items in the databases. If the latter problem is easily overcome by thorough discussions involving the regional services and the ministry of Culture, which is responsible for the general methods and databases, the first two are a real challenge and the third one cannot be solved but by continuous exchanges in the researchers' community.

This is the reason the French Railway Historical

## Taking stock of railway heritage

**Marie-Noëlle Polino**

Managing director, French Railway historical Society (AHICF)

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is changing rapidly and the traditional railway landscape is vanishing at full speed. When in the old days rolling stock could stay in operation some 60 years and track equipment last decades, today the development of the railway as an environment-friendly transport mode, the public policies in favour of public transport, the development of high speed rail all over the world bear radical changes for existing networks. These were often left behind and are in need of modern equipment, new regulations order the removal of asbestos or other materials. Simultaneously, the decline of freight railway transport in western countries and the tremendous increase of passengers' traffic dictate the removal of huge marshalling yards



Society, together with the French ministry of culture which sponsored the event, recently proposed a one-day conference on the railway heritage inventory. Entitled "Taking Stock of the Railway heritage: Confronting Methods and Experiences", the conference had three main objectives.

The first one was the assessment of the inventories which have been led to date, as to their interests, methods and results, in order that they would be better known by the researchers themselves, by the regional authorities, by the railway companies and the public body which is in France the owner of the railway tracks and equipment. The second one was tackling with the problems which the researchers meet or are afraid to meet when confronted to railway heritage, and the causes which might be ascribed to them; is it a matter of the railway heritage being too technical a topic of study, its linear form, the fact it is often recent and that a date is not easy to guess, or the repetition of small structures of possible poor quality? What are the archive sources, the railway technology experts or other resources which can help the research to be done and facilitate railway inventories everywhere in France? The third and last one was the makeup of a 'network about networks', so to speak, i.e. a community of people who could in the future count on each other's abilities to go on in the development of railway heritage inventory. (Records of the debates to be listened to online at: <http://www.ahicf.com/mp3/actes2008.htm> The proceedings will be soon in print in the Revue d'histoire des chemins de fer. See: <http://www.ahicf.com>)

The fact is, the railway sector all over the world

Experts at the round table discussion.

Photo: M-N Polino

and the building of new lines or the rebuilding of ancient ones. In Africa, Southern Asia and Southern America the railways were first a component of imperialism. Building railways in African places where a European eye could see no other transport, because traditional transport modes didn't need obvious infrastructure, was both a way of designing and controlling the country and a tool for exploiting its resources. The network design follows the map of the natural resources, the railway equipments are often oversized and what is left of them is a problem as to the conservation of this heritage. Besides, in some countries, especially in South America, the whole network was closed in the declining years of the railway freight transport, together with deindustrialisation, in the 1990s. For all these reasons, the constitution of a thorough methodology for railway heritage inventory is an essential topic on the agenda of industrial heritage studies.

The TICCIIH railway section, which was constituted last year thanks to an initiative of TICCIIH Mexico in the beautiful railway heritage site of Aguascalientes, is contemplating its second international meeting in the course of 2009. This meeting will be an opportunity for launching the inventory of main railway sites in the world, as well as to go in depth into the question of inventory methodology, its normalisation and the dissemination of the amount which is added daily to our knowledge of railway heritage.

■ The central station of Stuttgart is among the most important buildings from the beginning of the 20th century in Germany and Europe. It can be described as the first “modern” station and ranks along with avant-garde buildings like the “AEG-Turbinenhalle” (1908/09) in Berlin by Peter Behrens and the “Fagus-Werke” (1911) in Alfeld by Walter Gropius.

After long studies concerning the site of a new central station for Stuttgart, King William II of Württemberg (1848-1921) made his decision in 1907 on the basis of specialist advice. In 1910 the Railroad Company opened an architectural contest and the jury supported the project of the young Lorraine architect Paul Bonatz (1877-1956) and of his partner Friedrich Eugen Scholer (1874-1949).

Bonatz named his project “umbilicus sueviae”, the navel of Swabia, referring to the great economic importance of the station and the fact that it would be a terminus.

Finally, in December 1914 work began but three years later the First World War forced the suspension of all work, which was only resumed in 1919. On October 23, 1922, the last train left the old station and the first train entered Bonatz' half-finished station, later to become the emblem of Stuttgart. Only at this stage of the work was it possible to continue the construction of the building and the rails of the old station which passed through the middle of the building site were removed. Finally the “Hauptbahnhof” was completed in 1928.

Looking at this station through today's' eyes, one is initially struck by its monumental effect. Bonatz explains this feature with the enormous economic importance which this building had not only for the city of Stuttgart but also for the whole region of Swabia: “Everyone agreed that this building required a monumental effect: it represents much more than before all the entrances to a city and it is really the navel of this city and the whole area.”

What was new at the time was the manner in which Bonatz created this monumental effect. It does not need more to quote the arc of Constantine, for example, as “La gare du Midi” in Brussels still shows (built in 1863-1869). The slightly parabolic arc of the small counter-hall (“Kleine Schalterhalle”) shows the difference well: there is no longer the least trace of a real model. Bonatz succeeds in expressing the monumental only as a master-builder who has freed himself from imitating ancient styles. He rediscovers the artisan quality of the stone mason.

Another characteristic feature of the central station of Stuttgart is its asymmetrical plan. This distinguishes it from the majority of the buildings of the time. Bonatz succeeds in forming a free composition full of tension with

## The Central station of Stuttgart by Paul Bonatz (1877-1956)

Dr. Matthias Roser

several cubes of different volume culminating in the tower. Then it is necessary to mention the urban aspect, because the “Hauptbahnhof” fits perfectly with the structures of the city centre which it increased. The architect endeavoured to facilitate passenger movement in the station as much as possible with two counter-halls, the small one more for commuters, the large one more for long-distance travellers. In the axes of these two halls were the corresponding platforms.

The luggage-counters were on the ground floor between the middle-exit and the large counter-hall. Thus the travellers' pass were as short as possible. The transport of the luggage from here to the trains was done on the ground floor by railroad workers. The travellers went to the first floor, the level of the platforms. Along the third hall, the large terminus station hall, called “Kopfbahnsteighalle”, there were restaurants, waiting rooms, the station hotel (entry by the “kleine Schalterhalle”), the hairdresser and some more kiosks. Under the platforms, two tunnels facilitated postal transport and the transport of express parcels and a third one for the passengers changing trains.

In comparison with other stations of the time, for example that of Leipzig, it is necessary to affirm the architectural, urban qualities and

functional calculus of the “Hauptbahnhof”, which fully justify its title as a masterpiece of the architecture of the 20th century. That also explains why the station is classified as a historic building in accordance with § 12 of the law of the State of Baden-Württemberg. But above all, Paul Bonatz knew how to keep - in spite of the monumental effect - proportions in conformity with the human scale.

The present owner is the Deutsche Bahn AG which has neglected it for decades. Worse still, major parts of the station's architecture are threatened directly in the very near future. During the construction of a new underground main station, known as “Stuttgart 21”, a whole series of serious interventions are envisaged into 2009/10:: complete demolition of the south-eastern wing “Schlossgartenflügel”, the north-western wing, the principal staircase in the large counter-hall and the floor in the terminus station hall.

The dead-end station would lose by these brutal amputations the balance of its sublime composition which culminates in the tower. The length of the frontage would be reduced by half. The result of all this would be a torso. It is particularly serious that it is the federal state, the owner of Deutsche Bahn AG and vigorously supported by the State of Baden-Württemberg, the region of Stuttgart and the city of Stuttgart, which are proposing the mutilation of a widely known historic building.

It is necessary to express the gravest doubts about the measures envisaged and we urgently request the people in charge of the project to develop alternatives to the planning presented up to now. We have to find a solution which respects the monument and its great role for the city of Stuttgart.

See [www.hauptbahnhof-stuttgart.eu](http://www.hauptbahnhof-stuttgart.eu) and ‘Der Stuttgarter Hauptbahnhof – Vom Kulturdenkmal zum Abrisskandidaten’ by Matthias Roser, Schmetterling Verlag, Stuttgart (2008) (ISBN 3-89657-133-8)



Photo: Archivo Rudi Roeder, Stuttgart

## Argentina

### Why it is worth preserving the industrial heritage: the Liebig beef processing company town

Adriana Ortea



The Liebig factory from the river Uruguay.  
Photo: Andrew Graham-Yooll, 2004

■ The production of beef has left the mark of collective social progress on the Pueblo Liebig in Argentina, while products such as canned corned beef and beef extract with the Liebig brand became ubiquitous on the tables, hospitals and nursing homes of Europe or in the trenches of the two world wars.

The foundations of Argentina rest on the development of the economy of wheat and beef, easily exploitable and exportable sources of natural wealth. Cattle raising was introduced to the River Plate by the Spanish around 1570, from Paraguay, encouraged by the Jesuits. The first factories of tallow and grease followed, then plant for preparing salted meat in 1810 and with the invention of the dry cooler to preserve meat, in 1876 began the era of cold stores.

In Entre Rios, development and prosperity was based on the production of livestock and salting. English capital installed canned meat factories in Liebig in the rio Uruguay in 1903 and Bovril in the rio Panama in 1909.

Liebig's Extract of Meat & Co. arrived in South America at the end of the 19th century to build three factories along the river and a port for goods to enter and leave. Production began in Fray Bentos, Uruguay and expanded at Entre Rios, which began its transformation to a modern industrial plant.

It consolidated as a 'company town' which included areas of employment, workers'

housing and spaces for recreation. The village with 220 houses was divided into two sectors by the manga, the avenue where cattle were brought to the factory. On the south side lived workers in identical house while to the north lived employees in four models of 'chalets' in a sort of garden city. The factory was planned to process 1400 cattle daily. All was used and nothing wasted a perfect, rational organization. Since production ended at 'the Liebig', thousands lost their work and left. The factory started to turn to ruin and the village looked like a ghost town. Without losing its charm, for those living there, others began to arrive to experience the industrial heritage.

From 2001 it has developed a tourism industry with routes to learn the processes and history of the town. The social, cultural and economical history is interpreted, and shows how an electrical generator can be as emblematic a building as a cathedral.

There are still traces of the streets and houses of the village industrial but in September 2008, the owner of the factory started demolition work. The technological memory held in the generators of W. H. Allen Sons, Bedford, the Mellor boilers of Goodwins, Glasgow, the compressors from Ingersoll-Rand in New York, motors from MAN Diesel in Germany, refrigerators from York Shipley in London, are being dismantled and sold for their scrap value.

In Argentina, the legal framework for protection of cultural property exists, but without the institutional will to respect it or cultural practices for valorize it. The challenge is to retain and reuse some of the obsolete industrial heritage, incorporating it in its territorial dimension as a cultural landscape where factory, village and river testify to the identity and memory of the work.

As part of the rescue operations from the Liebig archive heritage, I am scanning the worker registration forms of the Fábrica Colón between 1936 and 1965, with a grant. The project is to catalogue and make these documents available for research and consultation.

The factory and people are a page of history, to listen to the voices emanating from the walls. History and heritage are tools which we have,

not to always look backwards but also to build a better and more worthwhile future.

## Spain

### Democrats vote yes for chimneys

■ A popular referendum to decide the future of the thermal power station of St Adrià de Besòs in Spain recently voted in favour of preservation and re-use for local services over demolition of the landmark structure. The three chimneys of the power station are the only widely-recognised symbol of this industrial suburb of Barcelona, easily spotted during the glide down the coast to the city airport.

The connection with TICCIH is through President Eusebi Casanelles who was a young industrial engineer in 1970 and worked on the original design of the Siemens combined cycle coal-powered generator. The turbines were housed in the long building in the foreground and the boilers hung vertically beneath each of the chimneys.

The referendum capped a campaign to change the plans of the power company which wanted to clear the site and build apartments by the sea. The original idea to hold a referendum was agreed between town council, owners and local groups and is binding. Though a less than 10% turn-out, 2,597 energetic citizens, the Yes vote was overwhelming. Various options for new uses might include a museum of transport for part of the 65,000 m<sup>2</sup> site.



The three chimneys of St Adrià de Besòs.  
Photo: Toni Tofa

## Education and training

### Master in TPTI

■ Master TPTI is a course proposed by a consortium of the University Panthéon-Sorbonne Paris (France), the University of Evora (Portugal) and the University of Padoue (Italy). It groups together three courses: History of

Technology, Management and promotion of the cultural heritage and Conservation, management, enhancement and communication of industrial heritages and is addressed to students who would wish to advance their knowledge of the history of technology, archaeology and industrial heritage. Within the two years framework of studies the accent is on research and training. At the end of this programme, students obtain three diplomas (Master of History of Technology - Master of

Management and promotion of the cultural heritage - Master of Conservation, Management, Valuation of industrial heritage) and one 'diploma supplement', detailing the complete programme.

TPTI can lead either toward a doctorate or into professional work in museums, inventories, collections, education, consulting in management and valuation of territories and monumental structures, scientific and technical journalism.

For more information, see [www.tpti.eu](http://www.tpti.eu).

Inside the winding engine house, TICCIH delegats include Francisco Calzolaio, Jose Manuel Lopes Cordeiro, Iona-Irina Iamandescu, Patrick Martin, Eusebi Casanelles, Jaime Migone and Empar Ripollès.  
Photo: David Worth

## Le Reti Internazionali dei Geositi e dell'archeologia industriale Internacional network of geosites and industrial archaeology

**Dr David Worth**  
South African National Representative

■ This meeting was organized, hosted and funded by the Parco Geominerario Storico Ambientale Della Sardegna (Historical Geo-Mineralogical and Environmental Park of Sardinia), in Carbonia and Iglesias, Sardinia, on 6th and 7th November 2008.

The first day of the conference was at the Serbariu coal mine museum, in Carbonia, and included a tour of the reconstructed 'underground workings'. The mine was ordered to be established by Mussolini in the 1930s, at a time when Italy was subject to international sanctions because of its invasion of Ethiopia. The city of Carbonia, said to have been built in 300 days, was established to house the 30,000 or so mine workers, and was inaugurated in December 1938.

The mine was closed in 1974, and in the past two years a museum has been established in the former 'lamp hall' of the mine. It comprises interpretive panels in Italian and English; static models; artefacts such as tools and personal effects; and archival photographs. After the mine closed, much of the site was pillaged before conservation began in 2002. There is much still to be done, with new sections of the museum, a research centre and a craft centre all planned for the future. The museum is jointly controlled and managed by the geo-park authority, the regional authority, and the municipality, and now has about 30,000 visitors per year. A web portal has been set up at [www.retidelparco.it](http://www.retidelparco.it).

Opening the conference, Giampiero Pinna, director of the Parco Geominerario Storico Ambientale Della Sardegna, described how the museum formed an integral part of Sardinia's geo-park network of some 120 mining sites, which is in turn part of a broader international network of geo-parks. This concept was new to some delegates. Pinna explained that the term is used to define areas that conserve and interpret the heritage of geological sites of all kinds, natural and archaeological, and was the subject of a UNESCO declaration in 1998.

Renato Covino, President of AIPAI (Associazione Italiana per il Patrimonio Archeologico Industriale) spoke about the importance of recognizing the layering of human activity on the landscape, and said it was necessary to resist politically driven moves to privilege pre-industrial landscapes and 'restore' romanticized notions of beauty. The creation of an international geo-parks network, he said, was a step towards creating the critical mass needed not only for conserving industrial landscapes, but also for addressing



The Lamarmora washing plant (1897), at Nebida, south western Sardinia.  
Photo: David Worth

the conservation of craft skills and traditional knowledge.

As well as UNESCO funding, European Union money also goes into funding the Sardinian geo-park, which is seen to have a critical role to play in the sustainable development of the island. The park (which covers 3,500 km<sup>2</sup>.) currently has seven sites open to the public, there are many links between the mining heritage of the area, and cultural, social and artistic programmes.

The second day of the conference took place at the former School of Mines, in Iglesias. Iglesias is a walled medieval town, with on its outskirts the Galleria Villamarina-Monteponi, a lead and zinc mine closed 10 years ago. In one gallery, a plaque commemorates the year long underground "sit-in" of Giampero Pinna, now Director of the Geo-Park, when he was campaigning to save the mine from destruction.

There were about 40 delegates, most of whom came from Europe, though South Africa, Morocco, Chile and the United States were also represented. Clearly there is a large area of overlap with the interests of TICCIH, and in

fact seven members of the TICCIH board had been invited to participate in the conference. It has to be said that the choice of invited delegates seemed a little eclectic, and there were some notable TICCIH colleagues who really should have been included for their expertise in the area of mining heritage.

There was little cohesion or overall direction to the programme, other than that presenters had some interest in mining heritage (most of the TICCIH members), or in natural geological features. Sometimes it felt as though the geo-parks people and the industrial heritage people were inhabiting parallel universes, but the conference was a bold attempt to bring these two interests together, and to demonstrate where future synergies might be found.

Our hosts were extremely generous in providing flights and accommodation for all delegates, together with all costs of attending. There was a splendid farewell dinner in Cagliari, on a day when the food of Sardinia was being celebrated in every major restaurant in Italy, and we were very well cared for. So, many thanks to all the organizers, and most especially to Giampiero Pinna and Francesco Calzolaio, for a wonderful opportunity to experience something of Sardinia, and to share some of their enthusiasm for the long road ahead for their project.

## Mining Landscapes International conference

Lewarde, France, 13-15 November 2008

■ Covering a banana-shaped territory about 120 kilometres long, home today to more than a million inhabitants, the coalfield of the Nord-Pas-de-Calais region is currently well placed on France's tentative list for nomination to UNESCO's list of World Heritage. The candidacy, in the category of cultural landscapes, is an ambitious one, but has enthusiastic support from all the local authorities and from the local population. Although it may not present any sites which can claim to be of epoch-making historical significance, the landscape as a whole, with several complete colliery ensembles preserved intact, pit-head winding gear of several generations, more than 200 coal tips, and acres upon acres of 19th- and 20th-century company-built miners' housing, is clearly of outstanding universal value. Several international experts agree. And the simple fact that this landscape soon figure on the UNESCO list has already had a considerable impact, changing perspectives and bringing a new sense of pride to the local community.

This candidacy was the context, from 13 to 15 November 2008, of a international conference on the heritage of mining landscapes. It was held at Lewarde, near Douai in the Nord department, at the former coal-mining site of the Fosse Delloye, home since 1984 to the Centre Historique Minier du Nord-Pas-de-Calais, one of France's two major coal-mining museums. The conference, which attracted about 150 participants, was

co-organised by this Centre Historique and by the CILAC, France's national association for industrial archaeology, for which this was its fifteenth national conference.

The questions addressed during the conference's open sessions began, obviously enough, with an attempt to define what a mining landscape is, what elements constitute its specificity and how it can be understood, in positive and even attractive ways, as a cultural landscape. The CILAC was anxious from the outset not to limit the examples to French coal-mining landscapes, and papers were heard on the coal heritage of Great Britain, Germany and Poland, as well as on the landscapes generated by other ores: metallurgical sites in Tuscany and Sardinia, uranium mines in the West of France, silver mining in Slovakia, bauxite in the South of France, asbestos in Canada. Another session took a look at the way in which these landscapes have been depicted by artists, and how, with changing ways of seeing, the notion of the landscape has emerged as an analytical tool in the social sciences and in even in heritage management. The proceedings of the conference will be published by the Centre Historique Minier in March 2009.

The conference included two coach trips, jointly organised by the Bassin Minier Unesco association, the Chaîne des Terrils, an association particularly concerned with the preservation of the region's coal tips, the Bassin Minier Mission and the Scarpe-Escaut regional park. The visits commenced at the 11-19 Loos-en-Gohelle colliery, remarkable for its preservation of an emblematic 1958 winding tower and for the twin coal tips, two of the highest in Europe at 186 metres. The 9-9bis colliery at Oignies was also visited, a

Louis André, Paul Smtih, Jo-Ann Campion,  
Bernard André and Bertrand Lemoine.  
Photo: Yves Berrier.



coherent ensemble dating from the inter-war period and which witnessed the end of coal extraction in the region, in 1990. Plans are going ahead here for a cultural conversion based primarily on the theme of music, a vital part of the region's intangible heritage. The second day's visits took in the Wallers-Arenberg colliery with its three headframes of 1903, 1920 and 1957. The conference participants had the privilege of going up to the summit of this last, 72-metre high headframe, to admire a landscape that may be described as windy, damp and overcast.

Underlining one of the underlying paradoxes highlighted by the conference—the invisibility of the immense underground landscapes that explain the physical and social upheavals above—Denis Woronoff, entrusted with the difficult task of drawing the conference to a conclusion, suggested some further lines of enquiry and research: how to account for the sounds and smells of the landscape, how to place the miners in the landscape, how to pursue the analysis of different representations of the landscape in paintings, post cards and photography, how to articulate the notions of landscape and territory. So... more mining conferences on the horizon!

Between the Earth and the Air resumes the work of several years in a relationship full of surprises: meals inside and outside the mine, farewells; those that with their daily life and their convictions taught Marco Antonio Hdez. Badillo to love and to respect the mining world. Maybe the most loved for him and that recently left this world was Primo Oliver, who showed him the different faces of "his world": the world of miners.

The landscape transformed again and again by the mining activity or decay and then, by the growth of the cities, is present through this book. The photographs are also a historic document; on this sense, the contribution of the photographic registry carried out during 24 years has a double importance because of the testimonial, historic and artistic value. The old industrial buildings that rise tremendous and majestic, like the engine rooms of La Dificultad, La Rabia, Dolores and Acosta, or the ruins

of the ore mining hacienda of San Buenaventura.

Between the Earth and the Air is a tribute to the miners and to their world, but also a registry of the industrial patrimony of Hidalgo's region, a historic document that is part of the rich patrimony guarded by the Historical Archive and Mining Museum, A.C. The book also gives continuity to the Museum's project of recuperation and diffusion of a culture sculpted day by day, by the persons that have developed the productive activity in the mining district of Real del Monte and Pachuca: laborers, employees and businessmen.

The Historical Archive and Mining Museum, A.C., has become one of the inheritors of that cultural legacy, for that reason has decided to commemorate its twentieth anniversary with the edition of this book.

**Belem Oviedo Gámez**  
President TICCIH México

## Publications

### Between the Earth and the Air

Marco Antonio Hdez. Badillo

## TICCIH Conferences

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

### China

#### First Chinese International Conference on Industrial Heritage

Chengdu, 10-15 May  
(Postponed from October 2008)

■ Presentations in English and Chinese. Info: Peng Lingchang, Dean, Museum of Industrial Civilization, Chengdu, No.1, Jianshenan Road, Chengdu City, 610051, Sichuan Province, P.R.China, e: [plcsy@126.com](mailto:plcsy@126.com), T: 0086-28-84325686, F: 0086-28-84355056.

### Germany

#### XIV TICCIH Congress: 'Industrial Heritage, Ecology and Economy'

30 August – 5 September, 2009  
Call for papers

■ Institute for History of Science and Technology, (IWTG) of the Technical University of Freiberg, in cooperation with TICCIH-Czech Republic and TICCIH-Poland, 30 August – 5 September, 2009. 2nd

call sent out in November. Info: [info@ticcih2009.de](mailto:info@ticcih2009.de) or see the congress website: [www.ticcih2009.de](http://www.ticcih2009.de)

### Argentina

#### II International meeting on the agro-industrial heritage,

Córdoba, 4-7 November 2009.

Call for papers

■ Follows the first meeting held in France in 2007.

Info: [www.col-ing-cba.org.ar](http://www.col-ing-cba.org.ar); [amarillalaura@hotmail.com](mailto:amarillalaura@hotmail.com); [comunicaciones@civiles.org.ar](mailto:comunicaciones@civiles.org.ar)

### Finland

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

Tampere, 2010

Conference organised by the Museum Centre Vapriikki ([www.tampere.fi/english/vapriikki/index.html](http://www.tampere.fi/english/vapriikki/index.html)).

## World Conferences

### Germany

#### IIIrd International Congress of Construction History,

Cottbus, 20-24 May

■ Info: [www.ch2009.de/home/index.html](http://www.ch2009.de/home/index.html)

### Denmark

#### Incredible Industry - Preserving the Evidence of Industrial Society

Copenhagen, 22-27 May

■ Special issues arising from the conservation of industrial cultural heritage, industrial materials, products and production equipment.

The conference coincides with the opening of a new large exhibition on Industrial Culture at the National Museum.

Info: [www.kongres09.nkf-dk.dk](http://www.kongres09.nkf-dk.dk); [kongres09@nkf-dk.dk](mailto:kongres09@nkf-dk.dk)

### US

#### 38th Annual SIA Conference

Pittsburgh, PA, 29-31 May

■ Info: [www.sia-web.org](http://www.sia-web.org)

### UK

#### 8th International Mining History Congress

Redruth, Cornwall, 12-15 June

■ Department of History, University of Exeter and Geevor Mining Museum, sponsored by Cornish Mining World Heritage Site

### Luxembourg

#### FEDECRAIL Conference 2009,

23-29 April

■ Hosted by AMTF Train 1900, the leading railway preservation organisation in the Grand Duchy of Luxembourg. Info: [conference@fedecrail.org](mailto:conference@fedecrail.org)

### Hungary

#### ICOHTEC 36th conference

Budapest, 28 July-2 August

■ A joint conference with IUHPS (The International Union of the History and Philosophy of Science).

## Opinion. From page 1

has been making a case for the protection of this industrial site – a precursor to revitalization of the 80 acres of the factory lands. After twenty five years of inaction, the Bhopal story has not remained exclusively Indian but of every town across the world, struggling to strike the fine balance between Industry, ecology and the greater common good. Marieberg (Sweden) Seveso (Italy) and Missouri (USA), Howrah (India), Guangxi (China), Santa Catarina (Brazil), Mailuu-Suu (Kyrgyzstan), Havelock (Swaziland) each are a part of the bigger picture that Bhopal today symbolises.

This inaction has also aided the slow dilapidation of the factory plant. International support is urgently called for to strengthen the case of protection. Expertise to evaluate, document, analyse, critique, clean, conserve, communicate, market or simply support this cause are required.

And lastly, the Bhopal story is also symptomatic of India's stance on Industrial Heritage. We Indians are obsessed with forts and palaces, with the exotic and the antique. That which tells the story of the ubiquitous, common and contemporary finds few enthusiasts. Unfortunately, this relegates Industrial Heritage to the lower link in the professional and academic food chain. Many of our cities are dotted with historic and significant industrial vestiges. The case of the abandoned UC site is a microcosm of the complexity and overwhelming pressures that these cities are facing while preparing their response to this heritage. This constant state of flux illustrates a situation that many Asian cities are faced with. As an architect and an academic, I find many voids need to be filled before protection, conservation, revitalization or celebration of the industrial heritage can be absorbed by the mainstream professional and academic system in India.

It remains a challenge for TICCIH to devise a 'multi-pronged' approach in Asia that places this discipline as a non-prescriptive, broadly based and inclusive master planning approach rather than a top-down super speciality that very few people understand or appreciate.