



THE INTERNATIONAL  
COMMITTEE FOR THE  
CONSERVATION  
OF THE INDUSTRIAL  
HERITAGE

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



*Nazarin*, filmed in México by Luis Buñuel in 1958. Considered the sixth most important of the 100 better Mexican Movies.

## number 34

autumn, 2006

### Inside:

Four delegates at the XIII TICCIH Congress, held last month in Terni, Italy, offer their perspectives.

This bulletin is produced and distributed with the support of the mNACTEC



MUSEU DE LA  
CIÈNCIA I DE LA  
TÈCNICA  
DE CATALUNYA

## The Cultural Heritage of the Movie Industry in Mexico

# Opinion

Andrés Armando Sánchez  
Hernández

Within the diversity of industrial culture, the evidence of cinematographic productions can be considered heritage, insofar as it is the result of the evidence and testimonies of production systems. In this sense, the Mexican movie industry, throughout its history, has gone through distinct periods that have shown Mexico in different contexts and social systems, through different forms of artistic and technological interpretations, as well as representations of daily life and of Mexican history.

For this reason, the material evidence of this industry should be considered as heritage, and not only the product but also the evidence surrounding the systems of production. As it is well known, new advances in film production also replace and make obsolete the machinery and the visual and artistic creation technology of previous periods.

The final products of the film industry can be considered heritage, as has been recognized recently when the Mexican movie *Los Olvidados* (1950) by Luis Buñuel was added to UNESCO's list of Cultural Heritage of Humanity. This highlights not only the importance of this art form, but also its role as legacy for new generations. In this way, other genres of Mexican cinema have shown other valuable periods, with humorous, dramatic, rural, etc. movies, that are eloquent testimonies and forms of representation of life in Mexico.

If the concept of heritage is seen as the results of the remnants of a representative society, and is thus defined as cultural heritage, then the legacy of the movie industry can be observed not only in the movies themselves but also in the different forms of evidence of the way that they were created; from the landscapes, equipment and technology used, to diverse intangible testimonies.

Heritage can be considered to implicitly include the installations, the forms of production, the technology, the studios, and the sets still in existence in Mexican territory. The cultural heritage of the cinematographic industry has within its field tangible and intangible evidences, sites, furniture, buildings, as well as the documents and archives that have accumulated over its history. These aspects have been taken into account in the creation of some museums such as that in Durango, where countless national and foreign movies were made and which have become part of the identity of the site.

The Studios Churubusco, for example, have for years been the location for many movies and it has accumulated a collection that can be considered heritage due to its importance in the set of world-class Mexican movies. The different tools, machinery, and equipment used in the production of movies can be considered industrial cultural heritage insofar as they have testimonial value as documents of this form of production and creation. The day-to-day advances of this industry make these documents invaluable evidence of the history of the Seventh Art. ([www.estudioschurubusco.com](http://www.estudioschurubusco.com))

Finally, it is important to mention that we cannot fail to take into account the natural and built landscape in which these unforgettable plots were developed, and which have acquired new values by reminding us of the importance that they have played in the movies, as well as in history. Many of these sites have artistic, architectural, or natural values and are, by their own right, considered natural or cultural heritage.

The author is an architect and a member of both TICCIH and ICOMOS in Mexico.  
Contact: [and.san@maxcom.net.mx](mailto:and.san@maxcom.net.mx)

### ■ New Board

The final event of the 2006 congress, as the first delegates began to slip away homewards, was the TICCIH General Assembly. As it is at each congress, the main business of the Assembly is the election of a new Board, and with one third of the existing members having to stand for re-election, and the empty places left by the death of Eugene Logunov and the retirement of Rainer Wirtz and Eric Nijhof, there were eight seats to be filled.

Twenty-four national representatives were able to vote in the election, in which there were eleven candidates. The five existing Board members who sought re-election were Ole Hyldtoft, Olga Deligianni, Stuart Smith, Jose Maria Lopes Cordeiro and Belem Oviedo, and there were six new candidates – Giovanni Luigi Fontana, who organised the Terni meeting, Iona-Irina Iamandescu, the National Representative from Romania, Dag Avango from Sweden, Helmuth Albrecht, representing the organizers of the next TICCIH congress in Germany, Jaime Migone from Chile and Miljenko Smokvina from Croatia.

As a result of the election, all the existing Board members were returned, and they were joined by Iona-Irina Iamandescu, Helmuth Albrecht and Jaime Migone. There was a tie in the number of votes between Ole Hyldtoft and Dag Avango, a situation never before encountered in a TICCIH election and not anticipated in the statutes, so the Board is deciding how to resolve it. All the names and contact information for the new Board can be found on the TICCIH web page.

### ■ Regional responsibilities

Another reform of the way in which TICCIH operates was proposed by Professor Patrick Martin. This is to have someone who can assist in cooperation and coordination between countries in each of the continents or regions where TICCIH has representatives. The executive is discussing which members of the Board might take on these tasks.

### ■ Terni

The conference organisers have sent out links to two post-conference sites. The papers that have been received so far can be consulted at [www.ticcihcongress2006.net/papers.html](http://www.ticcihcongress2006.net/papers.html), while the Italian press reviews of the Congress are at [www.ticcihcongress2006.net/areastampa.html](http://www.ticcihcongress2006.net/areastampa.html).

Work continues on the publication of the CD including the Congress proceedings and we invite all concerned who have not sent them yet to hand the papers in by November 15th 2006. Style instructions can be had from the organisers or the Editor.

A photo gallery is also being set up on the web site, if you want to share pictures and images about the study visits or the post-congress itineraries with the Organization they'll be very pleased to receive and select them.



Up: A glowing turbine shaft at the ThyssenKrupp forge in Terni. See the article on page 4.

Down: Art tries to compete for attention with industry at the Montemartini generating station, Rome.

Photo: David Worth

### ■ Nizhny Tagil charter – the revised edition

The TICCIH charter for the industrial heritage – know as the Nizhny Tagil Charter (this is the correct spelling, and not Nizgny as it sometimes appears) – was approved three years ago, at the General Assembly in Russia. In that time it has become an important point of reference, especially in those parts of the world where the conservation of the industrial heritage is still

an emerging subject and official attitudes are insensitive to its significance and vulnerability. Considerable experience has been gained as a result, both from wielding the Charter as a shield to defend the industrial heritage, and also from using it as a teaching resource to communicate the values and techniques that we use to study and protect that heritage.

In the light of this experience, and following a suggestion to the Board from Professor Marie Nisser, it was decided that it would be a good moment to carry out a review of the text of the Charter, to see if the original document that was drawn up during the year preceding the Moscow Congress could be strengthened. Once this process has been completed TICCIH hopes to publish the revised document, something that was never done after the Moscow congress, in an attractive and accessible format.

Everyone is welcome to contribute to this process, but especially people who have used the charter, for teaching or for conservation work, and have an idea of how it could be strengthened.

Professor Nisser will coordinate the revision through the office of the President. The current text of the charter is on the TICCIH website (there's a large link on the left of the home page) with versions in English, French, Spanish, Greek and Portuguese.

### ■ Conference agenda

The conference programme continues to grow, with at least seven international meetings associated with TICCIH already planned between now and the next TICCIH congress in 2009. Among the proposals that we have received is one for a joint meeting with ICOHTEC, our cousins in the history of technology, in Tampere, Finland in 2010. The idea of joint conferences has gained ground lately and there have been a number of such meetings, especially between industrial archaeologists and archaeologists working on similar chronological but different thematic material. Two new announcements since the Congress which can be seen on the back page of the Bulletin and in the TICCIH web site are the intermediate conferences next year in France being organised by Dr Gràcia Dorel, one for the Textile Section – the third such event – and another to launch a section dedicated to agriculture and the food-producing industry, and to what is often referred to as the agro-industrial heritage.

#### TICCIH Officers

**President:** Eusebi Casanelles  
 Museu de la Ciència i de la Tècnica de Catalunya  
 Rambla d'Ègara 270,  
 E-08221 Terrassa, Spain  
**Secretary:** Stuart B. Smith OBE,  
 'Chygarth', 5 Beacon Terrace  
 Camborne, Cornwall TR14 7BU, UK  
**Membership Secretary:**  
 Dr Maria Teresa Maiullari Pontois  
 39, rue de Fourqueux,  
 78100 Sainte-Germain-en-Laye  
 France  
**Editor:** James Douet, office of the President

The TICCIH Bulletin is published and distributed four times a year. Information for the Bulletin should be sent as early as possible.

Final dates for receiving information:  
 31 May for July mailing  
 31 August for October mailing  
 30 November for January mailing  
 29 February for April mailing

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.

**Editor:** News, information, and articles are welcome and should be sent to James Douet at the office of the TICCIH President, Eusebi Casanelles, mNACTEC, Rambla d'Ègara 270, Terrassa E-08221, Spain, tel.: +34 93736 8966, fax: +34 93736 8960, [ticcih@gencat.net](mailto:ticcih@gencat.net)

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

**Contributions:** Thanks to Eric Delony, Benjamin Fagner, Hsiao-Wei Lin, Miles Oglethorpe, Empar Ripolles, Jaume Puig, Andrés Armando Sánchez Hernández and David Worth.

**Design:** Xavier Solà/Disseny Visual, SL  
**Dipòsit Legal:** B-23.114-1998  
**ISSN:** 1605-6647

■ When I reflect on the course of the TICCIH congress in Terni I am struck by how the event's opening in the former production hall, now used by Papigno Film Studios, suggested the themes that would resonate over the course of the meeting in the days that ensued.

Not because it rained then for the first time and would again do so at the most inappropriate moments in the following days, always an unfortunate coincidence, quite unfairly so, given the evident efforts the organisers put into the event. What I am referring to is the forty participant flags raised over the podium during the opening ceremony, which were indicative of the kind of significance ascribed to the spread of the movement for industrial heritage conservation into new regions.

An advantage and certainly also the appeal of such meetings was expressed in a point made by Keith Falconer at one workshop (coincidentally, on the subject of "The Infrastructural Network"), when he said that the purpose of TICCIH is that it is able to unite experiences and offer examples from all over the world. Paradoxically, with the spread of activities across countries and continents, and through different political structures and cultures, the concept of industrial heritage is coming to be interpreted in diverse ways and influenced by diverse, at times perhaps too formal or too general interests, and it was possible to detect this thematic ambiguity from the very first evening of the congress, with the question of how to prevent the term "industrial heritage" in the organising body's name from being too broadly defined?

The sections and numerous workshops organised by the scientific committee provided a forum for the presentation of two hundred papers. This was a remarkable number of contributions, and I tried to take in as much as physically possible from this selection, to absorb the enormous amount of information, the variety of topics, and even the difficulties and obstacles that

■ The TICCIH 2006 XIII International Congress was an intensive training course. As a beginner in this field, I found it rich and inspiring, and discovered many new subjects to explore and people to work with.

The conference program illuminated the issues of the conservation and reuse of industrial heritage and stressed that these cannot be seen as individual objects but rather are integrated urban issues. The congress was well-structured, with an Opening Session providing an overview of industrial heritage in the world, a Main Section on industrial heritage related to urban transformation and the broad context

## XIII TICCIH Congress Terni, Italy

Dr Benjamin Fragner



Eusebi Casanelles with Sir Neil Cossons, who organised the first international industrial heritage conference at the Ironbridge Gorge Museum in 1973, at the Opening Session of the XIII Congress.

were highlighted in some papers. For example, in the presentations based on Asian and South American experiences, and sometimes those from the former Eastern bloc, it was hard to overlook the often incompatible use of terminology and at times the almost limitless typologies or time spans selected as the topic or period intended to capture the intention of participants in the discussion.

At times it seemed as though the arguments about the meaning of the movement for the conservation of industrial heritage and about what actually falls within the compass of industrial archaeology had returned to its roots, to how it appeared in the pages of publications a couple of decades ago. Now of course the discussion encom-

passes much more distant and mutually remote locations and countries with varying to incomparable economic situations and political backgrounds. A critical comparison of opportunities and aims would certainly help convey a better understanding of the information being exchanged.

In the context of the thematic and geographic expansion of the contributions to the congress perhaps then the most urgent need is to precisely and clearly define the terms that predominated the discourse during the congress. In this connection what is also required is a more sensitive appreciation of sometimes the very different expectations that are coming to be associated with industrial heritage.

I mention these points as part of a general impression from the September meeting, which, of course, is also based on experiences from the non-working, i.e. social, part of the congress programme. They reflect a general impression of the meeting's atmosphere and exposure to a variety of approaches to similar situations. For example, when at the end of one day of the congress we stepped out of the bus in Narni Scalo and found ourselves in an empty factory hall, transformed for the occasion into a concert hall, with a pile of coal and a small bulldozer (or some such machine) on the podium, the manner in which the event was experienced was symbolic of the diversity at another level, as some focused on the music, others reflected on what they had heard over the course of the day's discussions, some were amused, others intrigued, and still others distracted.

However, in my view what predominated was a sense of fascination with the space, and with the theme of a raw industrial environment, an experience that confirmed the significance of this kind of meeting.

Dr Benjamin Fragner is the National Representative for the Czech Republic, and Director of the Research Centre for Industrial Heritage, Czech Technical University

## Conference impressions

Hsiao-Wei Lin

of industrial landscape, and following up these sessions with thirteen specific workshops. However, delegates experienced something of an information-overload with more than 200 papers presented. Effective communication was reduced and the inter-disciplinary discussion on papers was missing due to the limited presentation time and language barriers. Although we might catch up with the discussion during the coffee break or on the bus, this aspect might be improved in the next coming congress.

The exhibitions accompanying the congress were also a good idea but the

schedule was a bit tight for us to really discover more. In addition, some very interesting exhibitions were only in Italian which was difficult for many non-Italian speakers.

The post-congress tour to the north was a great exploration of Italian industrial heritage although it was quite physically demanding with little time for sleep. With the superman professor Fontana and his enthusiastic colleagues, we had a good insight into the historic development of Italian industrial heritage. From the historic

smelting furnace at Tavernole sul Mella, the Wool Mill at Biella, company towns of Crespi d'Adda and Dalmine, to the new regeneration developments of Schio, Porto Marghera in Venice and Lingotto in Turin and so on, the jour-

ney was an impressive industrial heritage feast which I enjoyed and learned a great deal from. If we had more time, the famous fashion and car industries might have been brought into our program too.

Many thanks to the organizer Professor Fontana, his knowledgeable colleagues,

warm students and helpful wife Lucian. Together they made this congress and study trip a memorable and stimulating occasion, in addition to providing the opportunity to meet excellent professionals and explore the never-ending journey of industrial heritage.

Dr. Hsiao-Wei Lin, Assistant professor in Chung Yuan Christian University, Taiwan.  
Contact: linhw23@cycu.edu.tw

■ The principal sites that were included in the days of the main congress covered active, disused and reused industrial spaces.

By all accounts, and I was one of those who decided that the 2003 congress in Moscow and Nizhny Tagil was beyond my reach, the emotional peak was the visit to the Chusovoi iron works to see one of the last working Bessemer furnaces blowing. Italia 2006 did not provide any moment as memorable, but the Thyssen Krupp Special Steelworks in Terni probably came closest. ThyssenKrupp occupies several large industrial sheds on an extensive industrial estate, parts of which it shares with other companies performing similar or related processes, even though some of them are owned by competing firms. The process that we visited involved forging turbine shafts for nuclear and other electricity generating stations. ThyssenKrupp is one of a small number of companies in this field, and rates itself as the best. The process appeared simple but we were asked to try and not take too many photographs – perhaps not a serious request, and certainly not one taken seriously, and the guide asked, perhaps also jokingly, if there were anyone from China or Taiwan in our group.

The steel is cast, reheated in electric furnaces, forged and turned. When we arrived, two shafts over a metre in diameter and both glowing hot, were being slowly swung along the shed and fed into the enormous forge hammers – successors to the great 12,000 ton press that adorned the conference programme. The scene would have been not unfamiliar to a nineteenth century forgemaster, allowing for the change in scale of the operation, and perhaps the few men who were in evidence, movement of the overhead crane and the force of the press being effected from an enclosed control room.

The shafts are forged to within 30 or 40 cm of their final diameter and are then carried next door to the turning shed, where a series of lathes reduced them from the

## Visits during the Congress

relatively coarse, black mass of the forge to the gleaming polished steel of the finished article. Rotor blades are fitted by the client. What would happen if the forged metal was too narrow, and the 450,000 € shaft was wasted? "It would be a pity" commented the guide, laconically. The issue of electricity generators was

continued in visits to two power stations with contrasting destinies, the Montemartini thermal station in Rome which closed years ago and now houses part of the collection of Roman antiquities form the Capitoline Museums, and the Galleto-Monte Sant'Angelo hydroelectric station in near Terni, which is still generating electricity from the energy of the water of the Mamore Falls. The Falls were made famous by a stream of Romantic poets and painters in the 19th century. Now the water only passes over them to please tourists and they are 'illuminated' at night, as if they are not sufficiently spectacular for modern tastes. Most of the time the flow of water is diverted through the turbines of the neo-classical Galleto-Monte Sant'Angelo power station nearby to create the electrical energy on which the industrialisation of the area was partly founded.

The Montemartini station in contrast was built by the city authorities in 1912 to

The Editor makes a rare Bulletin appearance, next to one of the turned turbine shafts at the ThyssenKrupp works. Photo: E Ripplés



# report

## XIII TICCIH Congress



compete with an adjacent privately-operated generating station. It is also in the neo-Roman style that was predominant in civil architecture in Italy before 1945, SPQR engraved over the entrance. Inside, the 20m diesel generators made by Tosi and installed in 1933 share the lofty generating hall with marble figures of the Roman imperial period. The diesels, steam turbo alternators, boiler, crane and other original details have also been conserved in an

**Professor Luigi Fontana, the President of the Italian association AIPAI, who organised the whole congress.**

Photo: Jaime Migone

enjoyable combination of industrial and artistic monuments.

Montemartini was part of the industrialization of the Ostiense area on the left bank of the Tiber in the early 20th century, along with the Mercati Generali. The old market is closed now and most will soon disappear, but two reinforced concrete market hall, for fish and vegetables will be conserved and given a new use. The graceful molded columns and curved concrete ribs are interesting examples of the early exploration of the scope and possibilities of concrete architecture, even if they seem quaint compared with the vaulted structures already being erected elsewhere in Europe by engineers like Torroja or Fressinet.

■ A look at the crowded rooms of the Palazzi Gazzoli and di Primavera during the congress appeared to contradict at least two of the persistent attitudes toward industrial archaeology that have been around for as long as I remember. I don't suppose that Luigi Fontana has had time to analyse the age and gender profile of the four hundred or so delegates who came to his conference, but it would certainly be very different from the ageing and mostly male community that ours is sometimes perceived to be - as I hope the photographs in this issue also make apparent: plenty of young people, lots of women. In fact, TICCIH conferences are attended overwhelmingly by people working professionally as industrial archaeologists, actively studying, teaching and conserving the industrial heritage. Sir Neil Cossons expressed the anxiety in 'Perspectives on Industrial Archaeology', published for the XII TICCIH Congress in London in 2000, that industrial archaeology might follow rural and folk studies and disappear with its founders, of whom he wrote, in a typically vivid phrase, '...a self-defined elite failed to evolve or even reproduce itself in numbers sufficient to ensure survival of the species'. Two congresses later, and clearly that bleak warning has not come true. A recent conference keynote address published this spring spoke excitingly of a 'third generation' of industrial archaeologists, whose main concern was analysing the process of industrialisation, armed with a suite of tools and methodologies well adapted to their work.

Many of the young people attending and working at Terni were of course Professor Fontana's own students, and that leads to the second contradiction, that industrial archaeology has failed to mark out its own territory in the universities. I counted at least six professors at the General Assembly who teach industrial archaeology



## Conference participants

**James Douet**  
Editor TICCIH Bulletin

**Stuart Smith (Secretary), Jaime Migone (TICCIH Chile), Gràcia Dorel and Eusebi Casanelles (TICCIH President)** in Rome during the day's excursion from Terni.

in different universities in North America, Europe and Latin America. There is already tremendous interest in the next TICCIH congress thanks to Professor Helmuth Albrecht's presentation of the programme he hopes to present in

Freiberg in three years time. Gaps still exist in the educational provision around the world, including in Spain from where I write, even though we now have a young and vigorous TICCIH association here and more members than in any other country. But clearly there is a solid basis for the official optimism as expressed by the President, Eusebi Casanelles, at the opening ceremony in the huge Papigno film studios last month. Professor Patrick Martin's confident prediction in the first TICCIH Bulletin after the London congress of a bright future for industrial archaeology appears to have been well-founded.

## Spain

### 28th International Paper Historians (IHP) conference

5-8 October, 2006, Museu Molí Paperer de Capellades, Spain

#### Jaume Puig

■ Despite its name, the IHP includes a much wider spread of interests than the history of paper. Among the sixty delegates to this biennial congress were paper makers, paper conservators, art historians, museum curators as well as researchers interested in the multi-millennarian chronicle of paper.

Although he has iconic status, the inventor of true paper may not really be

the Chinese Cai Lu, but there is also some debate over what true paper is. Made from vegetable matter and passed through a fine sieve was one definition. What it is not is 'rice paper', which is neither paper nor made of rice but strips shaved with a keen-edged knife from a bamboo-like plant. This process was shown in one of two videos produced by Elaine and Sydney Korestky, a remarkable couple from Boston who run the Research Institute of Paper History & Technology. They organise periodic 'expeditions' to China and other Asian countries to track down and film the production of hand-made paper. Their second video was a fascinating collection of pre-industrial processes including many 'paper mills' so simple and ephemeral as to leave no material trace when they are gone. Similarly light installations, though

Continuous paper machine of the Picard type in the Munné mill.



equipped with water wheels, pulping hammers, vats and drying areas, must have co-existed alongside the large, capital consuming mills that have survived to become the archaeological record of paper production in the west.

The study of watermarks occupies a great deal of time and there are several international initiatives to scan them and build up on-line inventories. They haven't always been so well-understood, with one presentation showing the defaced books of a Siberian sect who took the translucent images in the paper for the signs of the anti-christ.

The next IPH conference is in Sweden in 2008.



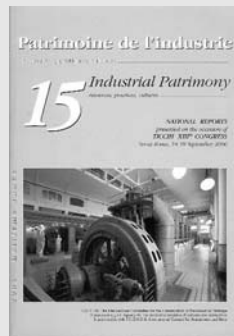
The Munné paper mill in Capellades, the last of a dozen 18th and early 19th century mills closely spaced along a small rec or power canal. The very typical typology of the mill has drying spaces on the upper two floors, accommodation for the family in the middle while the production of pulp and sheets of paper took place in the basement.

### Patrimoine de l'industrie, Industrial Patrimony

National Reports presented on the occasion of the TICCIH XIIIth Congress, No 15, 2006. English (summary of each report in French), 251pp., 33 € for two issues.

This is certainly TICCIH's most important contribution to the international understanding of industrial archaeology in a decade, and a will remain a hugely valuable source of information about the study and conservation of the historic industrial resource around the world for several years to come.

The Editors of TICCIH's twice-yearly journal took up the challenge of publishing the National Reports that traditionally accompany TICCIH's congresses, and which failed to appear after the last two consecutive events in London and Moscow. Twenty-nine reports are included as an extended edition of *Patrimoine de l'industrie*, which was given to each of the delegates in Terni. The themes covered vary as does the depth of coverage but, in general, reports deal with changes in the legislative framework affecting



industrial heritage; the condition of the local societies and their activities; recent research work; the role of industrial museums, especially in conserving sites; threats and challenges; successes and losses; recent publications and a bibliography.

So is the situation of each country unique or does a general picture become apparent? Certainly there are exceptional and often fascinating details in the reports. There has been prejudice against industrial sites in the Czech Republic because they were used by the communist party as propaganda. The heavy industry and great waterworks of Wallonia are well protected because they contribute more directly to the sense of regional identity than do the light industry and textiles of neighbouring Flanders. Australia has no specific industrial heritage organisation because industry is so integral to that country's history it is dealt with routinely. In France, local authorities, academics, journalists and the public are 'infatuated' with industrial heritage, and in Britain, too, there are programmes about saving old industrial sites on popular, mainstream television.

But general themes also emerge. Industrial restructuring, both sectorial –coal, iron and steel– and general –most of eastern Europe–, dictate the agendas of many professionals and academics. Privatisation has a similar effect in Latin America. Economic regeneration is widely accepted as a politically acceptable basis for investing in industrial conservation. But as the

■ Of those attending the closing plenary session, a few raised their hands when asked how many were engineers. Earlier during the conference, Vittorio Marchis and I chaired the historic bridge session. Though there have been papers on historic bridges, this is the first stand-alone bridge session in 33 years of TICCIH conferences.

Eight speakers, consisting of five engineers: Roberto Parisi and Roberto Gori, Italy; Leonardo Troyano, Madrid; Joseph Pullaro and Matt Reckard, USA; and, three from other disciplines; Michael Mende, Germany, Sir Neil Cossons, English Heritage, Eric DeLony, USA, read papers ranging from early Italian suspension bridges, conservation of Spain's historic bridges, John Roebling's early suspension bridges in the Upper Ruhr, efforts to list historic bridges as World Heritage in the UK, the physical rehabilitation of historic bridges in the United States, and discussion on forming an historic bridge/infrastructure/public works international special interest group.

In addition to emphasizing the importance of historic bridges and their contribution to infrastructure and the historic built environment, the intention of the bridge session was to begin the process of involving engineers in industrial heritage. Engineers have much to contribute.

Industrial heritage has been with us for 40-years. I spent the better part of my 32-year career trying to involve engineers in the Historic American Engineering Record (HAER), a documentation program of the National Park Service. During the last ten

## Is TICCIH ready for engineers?

Eric Delony

years, significant process was achieved.

I am an architect and preservationist by training and it was not easy penetrating the engineering community despite the fact that American Society of Civil Engineers (ASCE) was one of the founding organizations of HAER. Others were the National Park Service, where the HAER program is vested, and the Library of Congress, where the collection is curated and made available to the public, [www.loc.gov](http://www.loc.gov).

Schism is probably too strong a word, but engineers, architects and historians recognize that there are differences between professions. Differences between architects and engineers have existed since structures became too complicated requiring the expertise of engineers enabling them to stand up. This occurred during the latter part of the 19th century when train sheds, high rises, and other structural types required the expertise of engineers. Today, none of the professions will admit the split, but we all know it exists. We exist in a specialist world with each

profession protecting its turf. But, things are improving.

An illustration of this is the success of involving engineers in a America's national engineering heritage documentation program. Success stemmed from finding engineers who were interested in engineering heritage, introducing engineering students to that heritage, and who were willing to mentor students work over a 12-week HAER summer project. The stable of engineering educators increased from one to six over seven years. From 1996, HAER bridge documentation projects requiring the insights of engineers had one and sometimes two engineering students working with the architects, landscape architects and historians that traditionally compose HAER recording teams. This averaged 2-3 engineering students employed per summer, both foreign and domestic.

Thus evolved one of the most innovative aspects of HAER documentation: to produce not only drawings, photographs and histories, but to evaluate the structural capabilities of historic structures, analyze their performance and behavior, enabling assessments of the efficiency of the design, how engineers conceptualized their designs reconciling structural theory with best practices, resulting in buildable products.

We were able to compare similar designs types such as iron bowstrings, concrete arches and wood-framed covered bridges, to say something definitive about their efficiency, performance and behavior, and the skills and ingenuity of their designers.

experience of Athens' Olympics shows, and as London's already threatens to do, it can have a disastrous effect on the industrial heritage of the chosen area. Authenticity is a real problem for some re-use projects, an experience reported from Argentina to Sweden, where the concept of adaptive re-use if giving way to adaptive miss-use. Post-war buildings raise problems through the absence of established codes for appraising them. And sites are getting bigger all the time, partly as we move from small early industrial enterprises to later, larger ones, and partly as we extend our interests from a core of historic buildings to their setting, landscape or network connections.

The conceptual variety of interpretational ideas for industrial themes is striking. The Italian report speaks of a sector in full bloom, with museums, eco-museums, site museums, community museums, parks and trails, museum networks, itineraries, documentation centres and didactic workshops all tackling the significance of industry and the remains it has left in our culture. Inventories continue to grow, and are more and more frequently available on-line. International data exchange with TICCIH colleagues should permit the more reliable exchange of comparative data in the not-distant future. Writes Miles Oglethorpe, 'It should not be long before coordinated strategies aimed at protecting and recording the world's most important industrial sites can be put in to place. It should then be possible

to prioritise future work, concentrating on the most important and urgent cases with confidence'.

Congratulations, then, to the editors of *Patrimoine de l'industrie* for an attractive tome with clearly printed photographs. Copies can be purchased by writing to Louis Bergeron, 15, rue des Filles du Calvaire, F-75003, Paris, France, or [lbergeron@wanadoo.fr](mailto:lbergeron@wanadoo.fr)

The countries that are included in this volume are Argentina, Australia, Austria, Belgium, Brazil, Chile, Croatia, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Greece, Hungary, Italy, Japan, Mexico, Netherlands, Norway, Peru, Poland, Portugal, Romania, South Africa, Spain, Switzerland, and the USA.

### ***La macchina e il monumento, the machine and the monument,***

Gino Papuli, ICSIM N°5, ISBN 88-87288-75-5, Italian and English, 6 €.

How the great Terni steam hammer mentioned earlier in the Bulletin was dismantled, restored and re-erected is explained in Professor Papuli's bilingual booklet, which associates the Terni hammer with other monumental pieces of machinery such as the Schneider steam hammer which occupies a roundabout in Le Creusot, France.

Though interest in engineering heritage within the engineering community has expanded - just about all the engineering professions have history and heritage groups - engineers and engineering educators interested in their engineering past is rare. Engineers are educated differently and view the world from different perspectives than architects, historians, or preservationists.

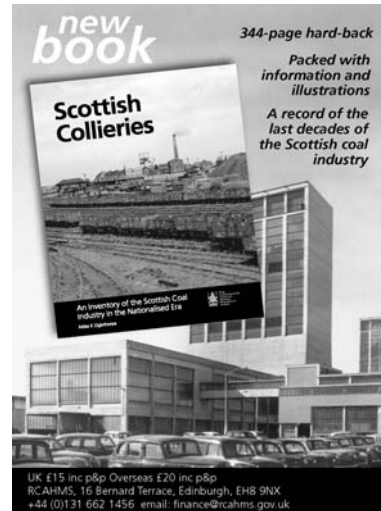
There are many reasons for this but the one most critics point to is that little in engineering education prepares students to deal with issues such as aesthetics, much less concepts of cultural landscapes, preservation, or restoring historic bridges. Most engineering educators maintain that course requirements already are overloaded just to get across the basics of sound engineering. Anything having to do with aesthetics, the evolution of the profession and related issues must be found outside the engineering curriculum and, most likely, on the student's own time. The world of architecture, historic preservation and industrial heritage is

dominated by architects, archeologists, historians, preservationists and museum specialists just as engineering is dominated by engineers.

Clearly, based on the HAER example, there is merit if the professions cooperate. Hence, the idea of an historic bridge/infrastructure/public works special interest group. Whether the 'marriage' between professions is globally possible remains to be seen. In America, there are approximately 400 engineering educators, consulting engineers, historic bridge scholars and enthusiasts that informally have organized a group called the 'bridge mafia' and, it is growing.

The idea of expanding historic preservation, regardless of whether its architectural, industrial, technological or engineering, to include engineers from all parts of the world would enhance scholarship and help save historic bridges. Bridges are engineered structures. To understand them and preserve them requires the input of engineers. World heritage could benefit significantly from the input of engineers.

In the larger context, it would improve the world's cultural landscape, life's quality, and mutual understanding. This especially is needed in our troubled world.



## TICCIH Conferences

More conference information at [www.mnactec.com/ticcih/news.htm](http://www.mnactec.com/ticcih/news.htm)

### Romania

#### 5th international conference and workshop on industrial archaeology

April 17-22, 2007

■ The industrial heritage of Romania as well as scientific activity in the field. Study visits to the industrial region of Caras Severin and around Bucharest, especially mining sites that are about to close. Contact: Irina Iamandescu, [irina.iamandescu@cultura.ro](mailto:irina.iamandescu@cultura.ro), [irina\\_iamandescu@yahoo.com](mailto:irina_iamandescu@yahoo.com)

### Poland

#### Industrial Heritage for the Future, TICCIH Intermediate Conference.

Warsaw, 27-29 April, 2007.  
Call for papers

### Germany

#### Big Stuff 2007: the preservation of large industrial heritage objects

Bochum and Hattingen, September 11-14, 2007. Call for papers

■ Following the very successful BigStuff 2004 in Australia, a sequel - BigStuff 2007 - will be given in the Ruhr Basin (Ruhrgebiet), a classic, highly-industrialized coal and steel region in Germany. The organizer is the German Mining Museum

■ This conference is devoted to the strategy of the post-industrial as well as post-military heritage and its role in regional economic development. Pre-conference tour - Ostróda-Elblag Canal. Post-conference tour - textile route Łódź, Żyrardów. Contact: Dr Julian Kolodziej TICCIH Poland, [ticcih@wp.pl](mailto:ticcih@wp.pl)

### France

#### 1st International Conference on the Agricultural and Food Heritage

Reims, 3-5 May, 2007.  
Call for papers

■ The APIC (Association pour le Patrimoine Industriel de Champagne-Ardenne) —with its headquarters in the French region of Champagne, where one of the world's most-admired food products is produced— in conjunction with

TICCIH is organising this meeting at the Centre Régional de Documentation Pédagogique (CR-DP), with the aim of constituting a section within TICCIH, analysing the situation at the international level and determining which are the most important sites in existence today. Contact [ticcih@gencat.net](mailto:ticcih@gencat.net)

### III meeting of the TICCIH Textile Section

Sedan and Mouzon, 31 May-2 June, 2007. Call for papers

■ The task set by the organizers is to propose a list of the 100 most important industrial textile sites in the world. It will include the presentation of the final version of TICCIH's thematic study of textile mills. Contact: Alain Renard, 2 rue Saint Denis, 08210 - Mouzon (France), +33 3 24267448, [ticcih07@gmail.com](mailto:ticcih07@gmail.com)

■ The Research Centre for Industrial Heritage in cooperation with the Czech National Committee of ICOMOS, the National Technical Museum and the Technical Monuments Committee of the Czech Chamber of Certified Engineers and the National Heritage Institute. Part of the commemoration of the 300th anniversary of the founding of the Czech Technical University in Prague. info: Dr Benjamin Fragner.

### Czech Republic

#### Industrial Heritage as a Force for Sustainable Development

Prague, Kladno and Liberec, September 2007

(Deutsches Bergbau Museum), Bochum in partnership with the Westphalian Museum of Industry (Westfälisches Industriemuseum), Dortmund. info: [bigstuff07@bergbaumuseum.de](mailto:bigstuff07@bergbaumuseum.de), Conference web site: [www.bigstuff07.net](http://www.bigstuff07.net)

## World Conferences