

The campaign to save a fragment of Paris' fast-disappearing industrial fabric. See page 6

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Inside:

Company towns in Japan and Brazil

A recent email discussion by the TICCIH Board on the scope of Industrial Heritage proposed for the joint ICOMOS/TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes (the PCIHSSAL Charter?), identified that there is some disagreement about the scope of the field covered by the term Industrial Heritage. The point of concern was the emphasis on the Heritage of "Industrial Revolution" as being the focus of Industrial Heritage. TICCIH's own charter, the Nizhny Tagil Charter, states "The historical period of principal interest extends forward from the beginning of the Industrial Revolution in the second half of the eighteenth century up to and including the present day, while also examining its earlier pre-industrial and protoindustrial roots"

This is similar to many definitions of Industrial Heritage or Industrial Archaeology in the literature where the emphasis is directly on the "Industrial Revolution" being the field of study with a passing acknowledgement to industry prior to the "Revolution" and rarely a reference to post-"Industrial Revolution" industry although varying authors give the period from 1850 to 1900 as the end of the "Industrial Revolution". My view of this definition is that it excludes much historical industrial activity. For example, Georgius



JCIS Consultants, Sydney

Is Industrial
Heritage greater
than or equal to
the Heritage of
the Industrial
Revolution?

Argicola's De Re Metallica illustrates the rich mining industry active in the Erzgebirge well before the Industrial Revolution started; is this not Industrial Heritage? China had a significant export porcelain industry; to Iran and the Middle East and then to Europe, all well before Adam Darby was a boy. Japan, as is well known, did not begin its program of industrialisation until the 1860's which in some views is after the Industrial Revolution. Is this not Industrial Heritage?

Clearly these examples are all significant parts of our Industrial Heritage and we would want key places and relics to be identified and protected for future generations. Yet by equating Industrial Heritage with the Industrial Revolution they are excluded. How did things get into such a mess? Industrial Archaeology also has this problem of defining its scope. In the English-speaking tradition at least this stems from the practice's emergence from the ruins of the Industrial Revolution. To a large extent the field of study of Industrial Heritage reflects the scope of Industrial Archaeology as being the archaeology of the "Industrial Revolution". I would argue that there is confusion between the techniques of Industrial Archaeology and the field of study to which they are applied which has resulted in this limited definition of the practice which has flowed on to the practice of Industrial Heritage.

For industrial sites, a particular archaeological skill set has been developed that focuses on material evidence and explains and interprets it. These skills include the standard archaeological ones of excavation and survey but, in particular with industrial sites, there are skills in understanding how a site worked: that is in understanding how raw material was transformed as it flowed across the site, the processes and technology involved and the finished products and wastes. There is also a strong tradition of looking at environmental changes within the landscape. Industrial Archaeologists are probably more used to looking in detail at spaces, such as standing buildings and structures, than other archaeologists.

Notably, Industrial Archaeology is generally undertaken in an era where there is an extensive documentary component to industry and the Industrial Archaeologist has to develop methodologies for relating documentary evidence to physical evidence.

However, these techniques are not necessarily exclusive to the study of the Industrial Revolution; they can equally be applied to studies of contemporary industry as well as Australian Aboriginal stone tool manufacture and distribution. In short, Industrial Archaeology is plainly a method for studying the past not a study of a particular period of the past.

It follows that there can clearly be no objection to considering that Industrial Archaeology and the Heritage which it identified and values is much broader in scope than simply the Industrial Revolution. TICCIH needs to consider a Revolution in the Revolution and adopt a broader definition of the scope of the world's Industrial Heritage.

This argument is not to say that the Industrial Revolution is not an important part of the world's Heritage. Nor is it suggested that Industrial Archaeology should not play a key role in studying the Industrial Revolution in all its direct and indirect manifestations. However, when the notion of Industrial Heritage is considered, the shackles of the Industrial Revolution should be discarded and recognition should be given to Industrial Heritage it its broadest sense by adopting definitions that acknowledge that the Industrial Heritage of different eras and different peoples is also as significant as the wonderful icons of Industrial Revolution.



■ Database for hydro-electric sites

Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) met in November last year to discuss a joint initiative to create a national and international database and website to disseminate information on the hydroelectric power infrastructure of Scotland, and from other international contributors. The initiative follows work in Scotland to survey hydro-electric power resources for possible designation as protected buildings, and discussion of the sector at the 2010 TICCIH conference in Tampere.

The team involved hopes that the resource will be available internationally with scope for contributions from organisations and individuals around the world to add data to the online portal. It is also hoped that in time the initiative could be rolled out to other sectors as appropriate.

■ Rheinfelden demolished

All the efforts of the local team plus TICCIH's advocacy were not enough to halt the destruction of the Rheinfelden river hydroelectric generating station on the Upper Rhine in Germany - Europe's oldest. The excavators started work at the beginning of December pulling down the walls of the 112year old generating station, still full of its German and Swedish equipment. "This is a failure of an entire region," said a bitter Kurt Beretta who led the citizens' protest movement. As long ago as 1986 the State Heritage Office identified Rheinfelden as "a cultural monument of special and international importance". Strong economic interests, and some conflict with ecological concerns on the river, are blamed for the loss.

An international conservators' social network

ICOMOS have launched the Gilles Nourissier Database of its members to assist networking and to improve membership management and services within the organisation. It is already





Rheinfelden at the end.

working and members are invited to complete their own on-line professional profile and to keep it up-to-date. Its core objectives are: to put expertise of highly qualified professionals and specialists at the service of the international community"; to permit the identification of skills and experience to be deployed in the conservation of cultural environments, and in the enhancement of best practice in design, administration and management, and in the application of laws, regulations and guidelines to fulfil national and international policies; to strengthen the participation in debate on cultural policies and practice; for communities world-wide, through

enhancing the flow of ideas and scientific understanding; access to necessary holistic expertise required to resolve complex contemporary challenges; to enable the World's media, public and private agencies to more easily find expert skills and experience, and find suitable biographies for contribution to

public debate. http://membership.icomos.org

Photos: Kurt Beretta

Thanks to all the contributors. Photographs are by the authors unless stated otherwise.

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

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

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

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

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Matsubara Housing in the context of Japanese Coal Mining History

Professor Shigetomo Kikuchi Kyushu University, Japan

Starting in the Meiji era, the Japanese coalmining industry developed extensively with the advance of modernization and industrialization. It experienced its peak during the Second World War, and in the 1940s immediately after the war. During that time, a large amount of housing for the coal mine workers had been constructed by private companies. Japanese coal miners' housing is an early example of housing strategically supplied based upon modern concepts in a period before public housing initiatives started in full swing.

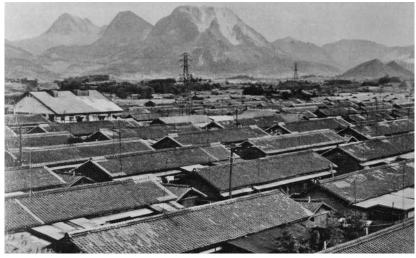
The Mitsui Tagawa Coal Mine was one of the largest coal mines owned by a major company in the Chikuho district. Coal production was put under the control of the government as a military industry in the latter half of the 1930s when Matsubara miners' housing was built, and the coal output at that time was the highest throughout the operation period.

The labour management system in the earliest years used to be "Naya-Seido" (shed-system) a kind of sweating system. The housing system using sheds was built in a manner in which a chief assigned by the owner of a mine was in charge of the management of the living conditions of the mine workers. In the boom of the 1910s, after the First World War, the modernization of the coal-mining industry continued, which led to the direct employment of workers. Since then, the company advocated for the policy of housing management and operation by the company itself. Corresponding to a hierarchy, roles were assigned to residents, and the communal system for taking care of inhabitants' daily lives was established.

The period of 1920-1930 saw the decline of output due to the economic stagnation caused by the end of the First World War. At the same time, the company carried out rationalization of workers due to the innovation of mining technology, and, as a result, the number of coal miners decreased. In this period, almost no housing was built.

After the 1931 Manchurian Incident, the coalmining industry was subjected to national control as a military industry, so that coal mining began to boom again. As the wartime regime was further strengthened, increase in coal production was again strengthened as a national policy and coal output dramatically increased through the transfer of workers and incentives. In 1938, a large part of the coal mining industry, including the deployment of workers, procurement of materials, financing and the like was placed under state control.

Due to these policies and the increase of coal output, a large amount of housing for each coal mine was supplied in the latter part of the



Matsubara miners' housing.

1930s, and new coal mine housing towns were constructed. The improvement of housing for workers had been implemented by the government earlier on. However, because the number of workers decreased in the slump of coal mining in the 1920s, the improvement in housing size was implemented by extension and renovation to existing dwellings rather than construction of new ones. It was this enhanced housing standard that was applied to the housing newly constructed in the 1930s. The Matsubara, a representative case, epitomizes a high mark in coal mining housing plans.

Matsubara Miners' Housing started to be built in 1936 and was almost completed in 1938, three years later. It was the largest miners' housing town in Mitsui Tagawa with a total site area of 207,385 m2, 465 housing buildings, and 1,698 dwelling units.

The plan had reached a certain standard due to the improvement in housing up until that time. That being the case, however, the dwelling units of two-room models which accounted for a large proportion of the miners' housing still had no toilet for private use, a relic of the previous situation. The two-room models had evolved from the front earth floor type of the earliest eras, and this type was employed by many coal mines in the Chikuho district during this period. It was likely standardized when large amounts of new miners' housing were built in the latter part of the 1930s.

Three-room models for excellent miners were differentiated by making three-family housing units in buildings of the same dimensions as that of four-family housing buildings. Meanwhile, clear improvements can be observed in the interior design and outer appearance. Tokonoma (traditional alcoves) were built in both the special selection housing and standard types, and various elaborations can be seen in the outer appearance such as bay windows in the facade, in particular.

In this manner, the latter part of the 1930s when coal output was at its peak was a time when standardized and nationalized construction methods made the mass production of housing possible. During this period, differentiations in housing standard and design were also taken into account. In light of expected expenditure reduction and mass construction during the wartime, a systemized house supply system was established. However, it is evident that this system did not have consistency of planning or sustainability from the fact that the standard of houses supplied was different depending on the year. In other words, a highly systematized housing supplying system was employed rather hastily.

The number of existent miners' housing buildings remaining in Matsubara is approximately thirty. Although these numbers are very small, major types and variations remain. Having not only a representative example but an assembly of types of remains was very valuable in understanding the history of coal miners' housing.

Northeastern Brazilian company towns: history, present and future perspectives Carolina Lucena Rosa

From the 1880s until the 1930s Brazil experienced substantial industrial growth triggered by the introduction of capitalist productive relations in the coffee export complex, in the south-eastern state of São Paulo. Such development was accompanied by the establishment of industrial company towns, namely in the textile, paper, mining and sugar sectors. Despite the historical patterns of industrial concentration in the South of the country, various company towns of expressive scale and singular features were established in



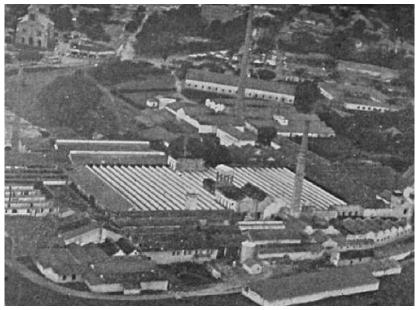
the Northeast, and form an important and still poorly examined chapter of Brazilian industrial history.

Hitherto, the approach adopted in most studies on north-eastern company towns has been of local history, and of a descriptive nature; this lack of comparative analyses focusing on key issues, such as social relationships, the organization of labour, industrial techniques and processes, and the integration and connections between industrial and other spaces, constitute a major impediment to identification of regional trends and specificities of north-eastern company towns development in the broader Brazilian context

Three emblematic company towns in Northeast Brazil are Rio Tinto (state of Paraíba), Paulista (state of Pernambuco) and Pedra (state of Alagoas), all founded at the beginning of the 20th century, and built upon three major bases: (a) local bossism, i.e. the control over political and repressive powers; (b) paternalistic rule exceeding the basic requirements to attract and stabilize the workforce, and also to exert a strict control over the workers' lives, salaries and political choices, and (c) personalistic and charismatic authority, validated by a nurtured perception of the boss as someone of exemplary value and extraordinary qualities.

Rio Tinto and Paulista were cotton textile mills founded by a family of entrepreneurs of Swedish origin, the Lundgrens, and are among the largest company towns in Brazil: at their peak in the 1940s, these enterprises employed over 10,000 workers each and comprised around 6,000 and 2,500 workers' houses, respectively. Production was safeguarded by the organization and control of its external parameters: Lundgren housing, schools, hospitals, movie theatre, leisure clubs, and even a Lundgren church and private militia. Facing severe economic crisis, especially from 1960s onwards, the Lundgren factories were gradually closed down, depriving the towns from its virtually only source of income and leaving behind a poverty-stricken population and derelict buildings.

Despite not equalling the size of the aforementioned industrial settlements, the town of Pedra, home to the Agro Fabril Mercantil, a cotton thread factory, also offered its workers a wide range of services, such as medical and dentist clinics, schools and a skating ring. Pedra is especially noted for the strict discipline enforced upon workers by its founder, Delmiro Gouveia, which included mandatory daily showers and the requirement that men wore shirts at all times, even in their own homes. Punishments were also part of the company town's life, and included being tying up purportedly guilty workers to a tree strategically located in front the factory. Following the demise of Delmiro Gouveia,



Aerial view of the Paulista cotton mill.

Photo: Góes, Raul de. Um Sueco emigra para o Nordeste. 2. Rio de Janeiro: Livraria José Olympio, 1964.



The impressive Angiquinho hydroelectric power plant in Pedra.

Photo: Secretaria de Estado da Cultura de Alagoas

Pedra was acquired by the Scottish enterprise Machine Cotton and stripped of its original machinery. Throughout the years the factory was in the hands of different industrial groups and is currently in operation.

Even though most of the physical evidence of the aforementioned company towns remains, initiatives aiming at their safeguard are still at their infancy. Inadequate adaptations of the industrial structures and poor documentation efforts are gradually erasing the memory of the economic activity that gave origin to the towns, as well as destroying important references related to communitarian identity.

In recent years, part of the remains of the Rio Tinto, Paulista and Pedra has been listed by state-level Heritage Registers. The company town ensembles, however, have been overlooked in the official processes and only individual assets were listed: the Lundgren mansion and gardens in Paulista (2009); Pedra's hydroelectric power plant – Angiquinho, the first in the Northeast (2006), and the Lundgren mansion in Rio Tinto (2010).

Even though such measures represent an important step towards protection of the northeastern company towns, additional actions are urgently required to ensure effective safeguard of that significant component of Brazil's industrial heritage. Finally, it should be highlighted that in addition to Rio Tinto, Paulista and Pedra - epitomes of the company towns in the Northeast - a number of other lesser-known industrial experiences can be found in the region. Collectively, this ensemble of social, historical and economic memories are in much need of further studies and safeguard actions.





Looking up: New industrial heritage sites in the USA

Dr Bode J. Morin

Two new railroad bridge rehabilitation projects opened in New York last year that gave unique public access to former elevated and inadmissible rail crossings and corridors.

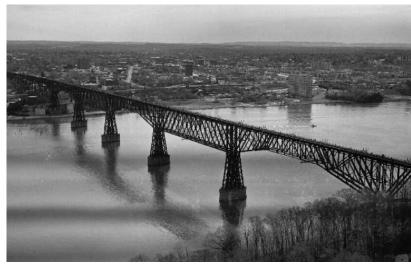
New York Highline

The elevated freight railway that serviced the west side of Manhattan in New York City began in 1934 as part of the West Side Improvement plan that included the elimination of street-grade rail service to the active industrial neighborhood. The original 13 mile (21 km) long service line eliminated 105 street crossings and directly serviced building interiors 30 feet off the ground significantly reducing street-level congestion. Following the growth of interstate trucking in the 1950s highline traffic began to decline leading to the demolition of the southern-most sections in the 1960s and the end of service in 1980. Following two decades of a demolition versus preservation debate, the Friends of the High Line formed and in the late 1990s began lobbying for conservation and a public access plan for the remaining structures. In 2002, the City of New York passed a resolution supporting the re-use concept and in 2005 assumed ownership of the highline. Following design competitions and fundraising, phase I of the new city park officially opened in 2009 with phase II expected in 2011. The park includes walking trails, sitting areas, landscaping, and public art all supported by the original structure. www.thehighline.org



The High Line at West 20th Street

Beyond My Ken, 2010, Wikimedia Commons, GNU free documentation license, http://en.wikipedia.org/wiki



Poughkeepsie Railroad Bridge

Jack Boucher, 1978, U.S. National Park Service. Historic American Engineering Record

Walkway over the Hudson State Historic Park

The second elevated rail development in New York is the Poughkeepsie rail road bridge that crosses the Hudson River roughly 80 miles (128 km) north of New York City. The bridge opened in 1888 and at the time claimed to be the longest in the world. One of the few 19th and early 20th century railroad crossings over this section of the Hudson River, the bridge carried 3,500 cars per day at its peak. Listed on the US National Register of Historic Places in 1978, the 6,767 ft (2 km) long riveted steel bridge has seven spans made up mostly of Warren deck-trusses, and sits 130 feet (40 m) above the water. In 1972 a fire caused significant damage to the deck which, with lowered usage, ultimately forced the closing of the bridge. Like the Highline, decades passed before a friends group, Walkway Over the Hudson, began efforts to preserve the bridge and create public access. After taking ownership in 1998 and fundraising for a decade, the group began construction in 2008 and officially opened as a NY State Park in 2009. Now claiming to be the world's largest pedestrian park and linked to regional bike and hiking trails, the crossing offers unobstructed birds-eye views of the Hudson River, the valley, and the town of Poughkeepsie. www.walkway.org

Save the Fabrique Gaupillat, **Paris**

Antoine Monnet

President, La Fabrique

The last standing remnant of the rich industrial past in the Val-de-Seine, Paris, the Gaupillat factory first produced caps for the armaments industry, later became a forge and precision stamping facility, before closure in 1997. Surrounding an impressive brick chimney, the factory's late 19th century iron framework recalls that of the Eiffel Tower and is located in Meudon-sur-Seine across from Ile Seguin and its now-disappeared Renault automobile plant. Since July 7, 2010 when its owners filed for a demolition permit, the Gaupillat factory building also cowers under the wrecking ball's menace. Mobilized for the last five years to develop an appropriate reconversion of the site, the Association La Fabrique urgently seeks government protection for the last remaining factory in the Val-de-Seine. The association's efforts are confronted by politicians and developers who either to ignore the site's industrial heritage or deny its historical value. This case is emblematic of a disparaging tendency in the Department of the Hauts de Seine to methodically eradicate the industrial heritage of the Paris suburbs. Factories like Gaupillat often provided an economic, sociological framework through which inhabitants came to terms with urban life. But today, under the guise of creating new "industrial zones" away from zones of habitation whose relation to contemporary mores is often contested, we eradicate any



vestige of our urban past that developers too quickly – and often erroneously – label "obsolete." We systemically raze any edifice the developer deems expendable before considering its preservation and potential reconversion in the fabric of a living patrimony. These enclaves of the new urbanism are all-too-often devoid of human sense.

The area surrounding La Fabrique Gaupillat is fifteen minutes southwest of Paris and features a port on the Seine, suburban train and tramway lines and a local roadway. It is a district undergoing radical transformation. For now, it's a mixture of contemporary glass and metal office space development and old apartment buildings – interspersed with an ugly profusion of empty lots. To the passing eye, the area's muddled character is incomprehensible. On the edge of the urban frontier, it is a place of social rupture. We believe it is also a place to preserve, a locale of great opportunity.

The Gaupillat enterprise dates to the 1830s. In 1884, Victor Gaupillat joined with J.F. Gévelot, a competitor from neighboring Issy-les-Moulineaux to create The Société Française des Munitions for hunters, sport shooting and armaments. The building we see on the Route de Vaugirard dates to the 1920s. The site features the impressive red brick industrial chimney, surrounded by roof trussing of riveted trellises, and occupies 4500 m2. Gévelot, the site's last occupant closed the factory on December 31, 1997.

At the end of 2004, the Ile Seguin was demolished. Famous Renault's Billancourt plant disappeared and along with it, an iconic symbol of France's working class history. La Fabrique was created at the same time, a non-profit organisation composed of local residents and defenders of local cultural heritage with the goal of preserving and rehabilitating the last standing remnant of the Val de Seine's industrial past – the Gaupillat factory.

Since 2005, La Fabrique works to develop a durable project of industrial reconversion uniting economic, cultural and sport activities with public and private partners. Public support for such an endeavor is manifest. La Fabrique launches a call for the mobilization necessary to protect sustainably this former factory as part of the Ile de France's industrial heritage and French patrimony.

The disaffected factory stands amidst the newly created communauté d'agglomérations GPSO (Grand Paris Seine Ouest). It looks directly onto the Vallée Rive Gauche project, the Conseil général des Hauts-de-Seine development of pedestrian riverbanks, public spaces, rail and waterways networks between the Sèvres Bridge and the gates of Paris. La Fabrique defends the creation of a multiple-use cultural venue across from the Ile Seguin – as a living memory of the area's working class heritage and a dynamic catalyst for the town of Meudon-sur-Seine. The rehabilitation project would conserve the historic structure of the factory: we believe that the vestiges of our industrial past are decidedly compatible with modernity.

Classing this factory as an historical monument to our industrial heritage would respect and reinforce the identity of both the neighborhood and the town. Its reconversion would be a siren to sustainable development, an example worthy of UNESCO's championing of cultural preservation.

In the face of our mobilization, the town of Meudon has granted a delay before ruling on the demolition permit sought by the current owners. But time is running short. La Fabrique will do everything in its power to stop this fatal demolition project.

For La Fabrique and the preservation and rehabilitation of the venue, the final cartridges are your signatures. Please sign our petition at www.association-lafabrique.org

The Luigi Micheletti Award: a successful Italian Story in Europe

Massimo Negri

Luigi Micheletti Foundation was launched in 1995 by the Micheletti Foundation and the European Museum Forum under the patronage of the Council of Europe, the award has put at the center of the stage a series of innovative experiences of influence in the European museum field, starting with the DASA in Dortmund, the first and unique European exhibition dedicated to the topic of safety at work, continuing with the Città della Scienza in Naples and ending – limiting the citations to the last winners – with the Museu da Ciencia in Coimbra (Portugal), the Jærmuseet at Nærbø (Norway) and the Museu Agbar de les Aigües in Barcelona (Spain).

Like any successful story, that of the Luigi Micheletti Award is marked by the ability to renew itself. from the 16th edition onwards, the award will be run in collaboration with the European Museum Academy, a Dutch foundation whose qualified Pool of Experts have proven scientific and museological experience.

Moreover, in future the award will be open to new types of institutions: science centres, interpretation centres, local projects, company museums and also projects using exposition language, even if they are not labelled "museums" in the strict sense of the term. so far candidates for the 2011 edition of the award range from the Science Gallery in Dublin to the Porsche Museum in Stuttgart, and from the Techno Museum in Mannheim to the Maison de la Science in Liège. But applications will still be accepted until 30 September and we are currently receiving other important candidates. The story of the award is an Italian story because it is connected to the life of the Micheletti Foundation, founded in 1981by Luigi Micheletti, a partisan during

World War II and afterward a entrepreneur in the field of economics. The Micheletti Foundation soon became an important archive in the domain of contemporary history and one of the first Italian institutions engaged in the preservation of industrial heritage, more than 30 years ago. A meeting with the great museologist and father of industrial archaeology, Kenneth Hudson, led to the birth 15 years ago of an award whose success has been confirmed, year after year, by the number and the quality of participants.

The Luigi Micheletti Award is also a European story, both for the partnership with European organizations and for the extent of its influence, including all 45 countries within the borders of the Council of Europe. The application form can be downloaded from the EMA website: www.europeanmuseumacademy. eu



Photomontage of the re-used Fabrique Gaupillat.

conference report

Bigstuff 2010, Imperial War Museum, Duxford, UK

Australian National University

On 6-8 October last year the Imperial War Museum (IWM) at Duxford in the UK hosted Bigstuff, a conference focused on the challenges of preserving, operating and displaying large technology heritage objects.

The first Bigstuff conference was held in Canberra in 2004, with the philosophy that the size and general functional aspects of large machinery objects were critical in determining how to care for and interpret them, regardless of exactly what type of technology they were or what industry they came from. Rather than approaching such objects as "aircraft" or "steam engines", Bigstuff took the approach that they were all complex, difficult to handle, expensive and time consuming to conserve, and inherently risky, both from a safety and a political point of view. People responsible for caring for them therefore had shared problems - physically, ethically, and in terms of raising the political will and financial resources to care for them.

This approach struck a chord, and in 2007 a second Bigstuff conference was held at the German Mining Museum in Bochum, Germany. This conference showed how important people from outside the heritage profession - such as economists, sociologists and educators - could be to the success of large technology heritage projects.

The conference in Duxford continued this tradition but, recognising that different backgrounds and roles can bring deeply felt differences of opinion, the theme of the conference was "Dealing with conflict". This inspired discussions of politics and decision making, with speakers taking a positive and proactive approach to the difficulties and developing improved processes for the negotiation of significance, display goals and treatment priorities.

Several speakers described decision-making models that could defuse potential conflict, and provide a rigorous framework for assess and comparing object. An updated version of the Conservation Management Tool developed by Joanna Barr (now Romanos), presented by Allison Russell of the National Motor Museum in South Australia, combined assessments of significance, physical condition and available resources, with risk management evaluation, and five star rating system for rarity fragility and (physical) state to clarify decisions about whether to operate large machinery. David Hallam's team, at the National Museum of Australia (NMA), had extended this model to assessments of each mechanical system in an object, giving them a numerical risk rating for the whole object. Sue Warren, of the Canada Science and Technology Museum Corporation, had adapted Romanos' model to static objects, using the significance and collection role of an object to determine whether it should be restored to look new or retain an historic appearance.

Anthony Coullis described the Conservation Management Plan used at Britain's National Railway Museum to assess the advisability of operating historic locomotives in a modern context, and Stefan Brueggerhoff, of the German Mining Museum, discussed the development of a method for managing whole industrial machinery complexes, including setting priorities for the gradual conservation of a site over an extended period and drawing together the needs, approaches and languages of the many different specialists involved in such a project.

Three papers discussed the difficulties caused when the rush to display objects overtakes planning and evaluation processes. Andrew Schroeder from the Australian War Memorial, and I, reviewed the collapse of an operational vehicle project and the strategies which helped resolve the resulting conflicts. Dave Morris, of Britain's Fleet Air Arm Museum, discussed the need to maintain a firm line between flying and

non-flying collection objects, and Laura Kennedy from the Australian War Memorial, and I, queried the assumption that using an unprovenanced object for display obviated the need to take ethical questions into account.

On the analytical front, Yvonne Shashoua from the National Museum of Denmark, evaluated coatings for exposed iron objects, and David Hallam (NMA) demonstrated the importance of analyzing vehicle fluids. On the treatment front, Chris Knapp, from IWM Duxford, described the restoration of a B52 aircraft, and the Duxford approach to suspending aircraft, while Norbert Tempel, of the Westphalian Museum of Industry, spoke of rehabilitating a vapour discharge tower at Henrichshütte Iron, which illustrated the ethical dilemma of having to damage or remove outer parts to stabilize internal ones. James Mitchell, of Industrial Heritage Consulting, discussed the twin perils of not operating objects, and of operating them badly, while Brian Barker presented an awardwinning training program, developed jointly by IWM and BAPC, for volunteers in the conservation and preservation of aircraft. Finally Carl Warner, of IWM Duxford, spoke of innovative ways to help visually impaired people appreciate large technology objects. If anyone would like more information about any of the papers, please contact Alison Wain on alison.wain@anu.edu.au

The 2010 World Canal Cities Expo Experts' Forum, Yangzhou, China 25-27 September, 2010

Dr Stephen Hughes

Co-ordinator of the TICCIH/ICOMOS World Heritage Study on Canals

[www.icomos.org/studies/canals.pdf]

This annual gathering was the fourth event to explore aspects of International Waterways and their relationship to the Grand Canal in China. This is still the longest waterway in the world and one of the most significant on the globe, and at the moment the authorities there are preparing a bid for World Heritage Status. ICOMOS asked TICCIH to send a representative.

Yangzhou Culture Conservation Department (forming part of the Grand Canal World Heritage Nomination bidding-team) are determining how King Fuchai of the Wan Kingdom ordered a navigable channel to be dug at Yangzhou in the 5th century B.C., thus forming the first part of what became the Grand Canal. In the Tang period, prompted by the Grand Canal, Yangzhou became the third largest city in China. It was the start of the Maritime Silk Route and thousands of Arab traders came there. One was a descendent of the Prophet Mohammed and is buried in one of the canal-side mosques. Marco Polo was appointed Mayor of Yangzhou for three years by the Emperor (this is of wider interest in that the first European Canals were constructed in Italy, followed by the Canal du Midi which in



Breakout session on the balcony during the Bigstuff conference.

conference report

turn inspired the Bridgewater Canal). During the Quing dynasty (1644-1911) Yangzhou was the centre of the canal-borne salt-trade and salt taxes. The famous navigable 'Western Slender Lake' gardens were created by merchants, conscious of their canal & water culture, for a visit of the Emperor Qianlong.

This year's international canal experts' seminar included a wider group of including Guo Zhan, a Vice President of ICOMOS and Secretary General of ICOMOS China and included other colleagues from the Department of Architecture at the South East University in Nanjing and of the World Cultural Heritage Joint Bidding Office of the Grand Canal. International experts included Dave Macdonald, President of Inland Waterways International and an expert on Canadian Canals; Mike Clarke of Inland Waterways international and a contributor to the TICCIH/ICOMOS International Canals Study and Stephen Hughes representing TICCIH.

The TICCIH paper and subsequent discussion dealt with the authenticity and integrity issues as illustrated by the present World Heritage Canals: The Canal du Midi; the Canal du Centre; the Rideau Canal; the Pontcysyllte Aqueduct & Canal; the Amsterdam Canal-ring and some of the other canals forming part of integrated industrial landscapes at Ironbridge, Blaenavon and in Cornwall.

This discussion began with mention of the UNESCO/ICOMOS/TICCIH World Canal Experts meeting held in 1994 on the Rideau Canal in Canada, one of the conclusions of which was that canals are economic entities and therefore subject to renewal and improvement in the course of their long working lives, changes that

are an integral part of these working monuments and in the UNESCO Information Document this was stated in the following words 'One distinctive feature of the canal as a heritage element is its evolution over time. This is linked to how it was used during different periods and the associated technological changes the canal underwent. The extent of these changes may constitute a heritage element.'

Industrial Heritage Retooled

Jay MacCauly

President of the Society for Industrial Archeology

The National Trust for Historic Preservation (US) sponsored a workshop in mid November 2010 at the Potantico Conference Center, on the former Rockefeller estate. The workshop was co-sponsored and supported by the J.M. Kaplan Fund and the Rockefeller Brothers Fund. The theme was the past, present and future of industrial heritage preservation. Retooled is an apt metaphor. Just as industries had to retool their processes and procedures to meet new challenges, so must we retool our efforts in industrial heritage preservation to meet the challenges in creative adaptive reuse and historical preservation.

The workshop attendees included Sir Neil Crossons, TICCIH President Emeritus, the Keynote Speaker, Prof. Pat Martin, current TICCIH President, and TICCIH member Jay McCauley, who is also the President of the Society for Industrial Archeology.

After a lively discussion over dinner and

beyond on Thursday, Nov 11, the workshop formally convened on Friday morning with a presentation by Sir Neil Crosson on the efforts of English Heritage in industrial heritage. He highlighted a number of trends, notably the migration back into the core of major cities to enjoy the rich tapestry that an urban setting can provide. The cores of Britain's industrial cities had been as empty as the US "Rust Belt", but are seeing significant rebirth, with adaptively reused industrial sites playing an important role. This also is in keeping with the Trust's goals on sustainable cities, with their tag line "the greenest building is the one that's already built". Several different participants and Sir Neil pointed out that buildings built before air conditioning and inexpensive electric lighting were more sustainable than modern buildings. For example, they are sited to take advantage of natural light and ventilation, and many have a large thermal mass due to their heavy construction that serves to reduce heating and cooling needs.

A very broad spectrum of interests and viewpoints were represented, from folks in state and Federal preservation roles to a successful developer of adaptively reused textile mill villages in South Carolina, the "unusual suspects" ensured a lively, intense discussion.

The workshop wrapped up Saturday with the participants making a long list of goals and action items for the future. I think all of us went away with a new sense of energy and community and a renewed dedication to industrial heritage preservation and community outreach.

TICCIH Conferences

Details of the conferences are on www.ticcih.org/TICCIH/news.htm

India

Bhopal 2011: Requiem & Revitalization. Call For Papers

Bhopal, 23 January – 4 February, 2011

Regeneration, Rehabilitation and Remembrance at the site of Bhopal Gas Tragedy: Students' Workshop, Symposium Initiative, exhibition and post conference tours. Modern Asian Architecture Network, India and TICCIH, India. Info: www.bhopal2011.in and www.m-aan.org.

Chile

Elevators and Funiculars of the World, Santiago and Valpariso, 14-16 April, 2011.

Organised by TICCIH Chile and APPI Portugal on history and conservation of funicular railways.

World Conferences

Germany

'Work – Bodies – Efficiency: new perspectives in historical workplace studies' CfP: 18 October, 2010

Ruhr-University Bochum, 24 – 25 February 2011.

■ Workshop investigating the deep transformation of workplace configurations. In German and English. Info: lars.bluma@rub.de; http://homepage.ruhr-uni-bochum.de/Lars.Bluma

Austria

On the Surface: The Heritage of Mines and Mining

Department of History and European Ethnology, University of Innsbruck. Innsbruck, 14-16 April 2011.

■ The physical sites and the social legacies left on the Earth's surface by the extractive industries. In partnership with the Centre for Tourism and Cultural Change, Leeds Metropolitan University UK. Info: ctcc@leedsmet.ac.uk

Ukraine

Fourth International Scientific Conference "Industrial heritage in the culture and landscape. Conference theme "Park and the Plant: from controversy to symbiosis

Donetsk Metallurgical Plant, Donetsk, 10-11 May, 2011.

■ In Russian, Ukrainian, English and Spanish. Reports and applications for participation until April 10, 2011. Info: Viktor Skorohod skorohod05@mail.ru (English); Yulian Tyutyunnik carme1@mail.ru (Spanish)

France

Industrial Heritage: New urban policies and the significance of re-use Université de technologie de Belfort-Montbéliard, Belfort, 21 - 24 September, 2011.

■ International seminar organised by the Université with CILAC and the Direction générale des patrimoines. Info: marina.gasnier@utbm.fr