



THE INTERNATIONAL
COMMITTEE FOR THE
CONSERVATION
OF THE INDUSTRIAL
HERITAGE

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Ships unloading cargo on the pier of Kronos liquor factory in Eleusis, Greece. (Photo: V. Tsakos)
In the 1930s, when this photograph was taken, handling of the materials was still manual.
The Kronos spirits' factory, which was built in 1922-1925, is now in critical condition.

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**Advanced
Industrial
Archaeology and
Techno-Museology**

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■ Urban anthropology was born in Chicago (USA), in the 1930's. Its fathers were E. Burgess, R. Park, W.Thomas, E. Hughes and others, the main representatives of the Chicago School of Urban Ecology. It came of age in the post-war years in the USA and in other western European countries and it has been a fully fledged independent branch of Social and Cultural Anthropology for more than two decades now, with an important ethnographic and theoretical contribution.

The involvement of social anthropology in the study of urban space, albeit delayed and rather hesitant at first (it started after 1980), contributed a lot to the understanding and interpretation of urban phenomena and to the study of the transformation of urban centers. The anthropological/ethnographic point of view in the study and interpretation of the urban space developed in two main currents: a) that of the city as a multi-ethnic and multicultural mosaic and b) that of the study of the ethnic-cultural groups and the part they played in the structuring and organization of the city, the make-up and expression of their identity, the transformation of modern cities in space and time. As Setha Low notes "An

ethnographic approach to the study of urban space includes four areas of spatial/cultural analysis: historical emergence, sociopolitical and economic structuring, patterns of social use and experiential meanings".

Social and Cultural Anthropology (a branch of which is Urban Anthropology) studies the city, the urban and industrialized areas as ethnic and multi-cultural spaces, divided, gendered, (de)industrialized, globalized and integrated in the cyberspace (all the new ways of communication, information, consumption etc which are used in the modern urban centres and which create new ways of social interaction.)

The study by the social sciences of urban phenomena in Greece was restricted to the contribution of urban sociology (study of the family), of social geography, of folklore studies (customs of the urban space), and, from the '90's onwards after the socio-political changes in S.E Europe, by the socio-cultural anthropology. It focused on the study of the migration phenomenon in urban centres and the use and transformation of space (by the schools of architecture and anthropology).

Greek urban centers followed mainly the "typical" course of evolution: from pre-industrial-commercial centers to urban-industrial ones, then to urban, (de)industrialized, multicultural centers. A rather rare exception to this rule are the "ville-usine", or "city-factory" of Lavrion (from the 19th century), Ptolemais (in the post-war period), etc.

Although the industrial past and the urban-industrial centers and monuments of Greece have given rise to a considerable number of high quality studies of their history and architecture, especially over the last twenty years, from an ethnographic and anthropological view-point the subject leaves much to be desired.

Social and cultural anthropology, by virtue of its powerful methodological and theoretical tools (fieldwork, participative observation, interviews), is in a position to bring forth very forcefully the rapport between man and the technical civilization that he generates. The anthropological point of view can contribute to the study of the acting subjects (labour manpower), their social structure, the make-up and expression of their ethnic-cultural diversity, to the understanding of technical practices and means (buildings, tools, machinery), as cultural and social phenomena and processes, not as mere technical constructions. Last but not least, it can contribute to a constructive dialogue for the study, preservation and utilization of the material and the immaterial industrial cultural heritage.

mahioiko@academyofathens.gr

Opinion

Dr Andromachi Oikonomou
Research Fellow, Hellenic
Folklore Research Centre,
Academy of Athens, Greece

Urban anthropology and industrial heritage

■ Annual Board meeting

The TICCIH Board met in Stockholm at the beginning of June as guests of Professor Marie Nisser and the Royal Institute for the History of Technology (KTH). The annual meeting was arranged to coincide with the seminar on training and education (see Professor Nisser's report on page 7) and many of the participants took part in both. National Representatives from France, Germany and Norway joined the Board on the second day which was hosted by the Teknica Museet, the Swedish National Museum of Science and Technology.

The two themes which dominated the discussions were TICCIH's work with ICOMOS and plans for next year's TICCIH Congress in Freiberg. Following the January meeting of experts of science and technology in London on which Stephen Hughes reported in the previous Bulletin (#40, p.10), it was decided to send a proposal to ICOMOS to confirm TICCIH's commitment and outlining a process by which the remaining industry-by-industry contextual studies could be completed. TICCIH will ask for a discussion with ICOMOS as to how the remaining studies can be carried out and funded (the report will be on the TICCIH website from July). For instance, some of the options might be as PhD studies at a university or as joint research programmes by potential WHS sites to support their applications.

The studies form the basis for the advice and evaluation of industrial world heritage sites which TICCIH provides as ICOMOS' scientific partner. Suggesting experts is another aspect of this work, and TICCIH recently put forward names to carry out evaluations of four new sites wanting to be considered as universal



Supper at the Board and National Representatives' meeting in the Teknica Museet, Stockholm. Marie Nisser (Honourary President), standing in front of the cylinder of the oldest beam engine in Sweden, with (visible from the left) Anne Louise Kemdal (director of the Museum), Eusebi Casanelles (TICCIH President), Randi Bartvedt (Norway), Patrick Martin, (US), Neil Cossons (Honorary President), Miles Oglethorpe (UK) and Gyorgyi Nemeth (Hungary). Photo: James Douet

heritage. They were the 'serial nomination' of the Mercury and Silver Binomial on the Intercontinental Camino Real, Almadén, Idrija and San Luis Potosí (Spain/Bolivia/Slovenia); watch-making urbanism of Chaux-de-Fonds / Le Locle, (Switzerland); the Shushtar Historical Hydraulic System, bridges, dams, canals, buildings and watermills from ancient time to present (Iran); and the extension of Salins-lesBains and the saline royale d'Arc-et-Senans (France).

■ TICCIH XIV 2009

Meanwhile preparations for the 14th TICCIH Congress in Freiberg from the 30th August to 5th September are well advanced and by the time you read this the web site with an on-line application will already be active. The congress represents a significant re-focussing of TICCIH's traditional interests around the practical, conceptual and economic issues presented by de-industrialisation. Papers are being called around the six main congress topic "Industrial Heritage, Ecology and Economy", as well as themes for workshop sessions.

- Industrial monuments and the cleaning up of old industrial sites
- Industrial Heritage, environmental protection and the preservation of nature
- Heritage concepts for the cleaning up and the re-use of industrial areas and industrial landscapes
- Economical concepts for the preservation and re-use of industrial monuments, industrial areas and industrial landscapes
- Regeneration through heritage: Reviving and maintaining the social fabric of urban and rural communities
- Industrial monuments and relicts of industrial culture as elements of cultural landscapes

The organisers want the congress to be a forum for the presentation of new research results as well as the discussion of new methods in documentation, preservation, conservation and re-use in industrial heritage. There will be opportunities to present at workshops and poster sessions. With important financial support the final cost should be accessible to most practitioners, and a special student fee will make it possible for many younger people to take part in their first TICCIH congress.

■ Restructured website

The TICCIH website with its new database structure provides the opportunity to develop the TICCIH lists of the most significant historic industrial sites, another project which will help in the evaluation of future WHS nominations. TICCIH President Eusebi Casanelles, who is

developing the database from his Museu de la Ciència i de la Tècnica de Catalunya reported on an initiative in Spain to identify the 100 most important sites and this could be a template for similar lists in other countries.

Another useful innovation for members will be the possibility of paying the fee online from the TICCIH website with a credit card. The Board agreed to set up a 'Paypal' account which will make it simpler and cheaper to join or to renew. A 'button' will be inserted into the 'Join TICCIH' membership form from August so that TICCIH can collect membership payments in a secure and economical way.

■ 40th anniversary edition: a correction

Having looked through my files I discover that there was a *TICCIH Newsletter* produced in 1985 of which I have edition 2 edited by Adrian Linters in Belgium. I do not have a copy of no. 1, 1984. From the summer of 1985 *World Industrial History* was published in Ironbridge and edited by Dr Barrie Trinder. This publication continued until 1992, No 8, by which time I had left Ironbridge but Barrie Trinder continued as Editor.

In 1988 from February onwards the *TICCIH Bulletin* was also published by Ironbridge, continuing three times a year until 1997 - once again edited by Dr Barrie Trinder.

The first issue of TICCIH Bulletin No 1 published in July 1998 was produced in Catalonia and things have gone from strength to strength since then. However, it is fair to say that TICCIH has actually produced a Bulletin continuously since 1988. I have a full file of all these bulletins, which probably eventually will find their way to the library at the Ironbridge Institute.

Stuart B Smith

■ ICOMOS 16th General Assembly

Many TICCIH members will be at the ICOMOS' Quebec meeting. On the agenda are elections for officers including a new president, for which the US representative Gustavo Araoz and the current Secretary General Dinu Bumbaru are candidates. TICCIH will be represented by Ioana-Irina Iamandescu from Romania and other TICCIH members who are going to Quebec should contact her.

■ Thanks to all the contributors Dr Florence Hachez-Leroy, David Hayes, Dr Gül Köksal, Dr Florent Laroche, Ana Paula Fuentes, Dr Andromachi Oikonomou, Professor Marilyn Palmer and Dr Iain Stuart

Photographs are by the authors unless stated otherwise.

TICCIH Officers

President: Eusebi Casanelles
Museu de la Ciència i de la Tècnica de Catalunya
Rambla d'Egara 270,
E-08221 Terrassa, Spain

Life presidents:
Sir Neil Cossons
Professor Marie Nisser
Professor Louis Bergeron
Secretary: Stuart B. Smith OBE, 'Chygarth',
5 Beacon Terrace Camborne, Cornwall TR14
7BU, UK
Editor: James Douet, office of the President

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.

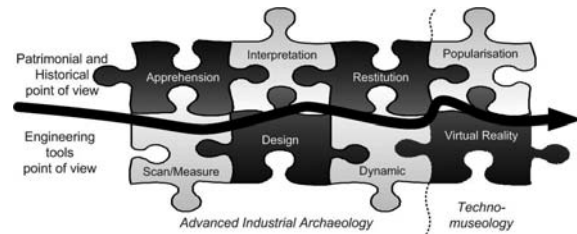
The *TICCIH Bulletin* welcomes news, comment and (shortish) articles from anyone who has something they want to say related to our field. The Bulletin is the only international newsletter dedicated to industrial archaeology and the conservation of the heritage of industrialisation. The TICCIH Bulletin 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, ticcih@gencat.net.

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■ All through history, humans have invented and created so as to improve their standard of living. Many machines have been built; simple ones but also very complex others. Businesses continuously adjust their operating modes and production tools to optimise added value creation. Machines are obsolete as soon as they don't meet the demand and are stopped, stored and very often dismantled. Industrial sites disappear and workers leave the industrial world, taking their know-how with them.

To anticipate and avoid this loss to our scientific and technological knowledge an idea was pioneered by Professor Michel Cotte¹ a few years ago. Our team has since then formalised the methodology and tested it over more than ten case studies.

Considering that the rescue and proper maintenance of physical objects is very costly for museums, and sometimes dismantling of the equipment is impossible due to the deteriorated condition of the machine, we proposed instead to preserve it as a digital object.

We focus on the mechanical and technical points of view. For instance, in a factory, there is the building itself but also all the equipment it contains. Taking into account the technical point of view can provide a better understanding of the past. Consequently, engineers and industrial engineering tools and methods can give answers for capitalising knowledge, conservation and popularisation of old machines. Even so, the work of historians is not discarded. Research for a better understanding of the socio-ethno-historical context of the object are necessary for formalising and validating technical hypotheses.

It is a new way of thinking about heritage projects: social sciences and engineering sciences must merge together. Tools and methods from both domains have to fit and to interact as shown by the puzzle figure at the top of the page.

Our proposition consists in reversing the time axis of the design process generally used for developing contemporary technical products. This means that we start at the end of the machine's life cycle and go backwards to examine the original need that led to it being created in the first place. The first step is to digitalise the physical object and to understand fully the whole operation of the machine. Next, thanks to virtual reality technologies, we can assess what we know of the object. This overall process is what we call Advanced Industrial Archaeology.

First of all, if physical data exists it must be captured. The basic tools are decimetres, slide callipers, micrometer callipers. However, 3D digitalisation can be employed for measuring complex machines or inaccessible components inside the object: TMM (Tridimensionnal Measuring Machines), laser radar, X-ray, 3D scanner laser with topographical reconstruction in real-time. Those contemporary industrial tools must be chosen carefully as the pace is not the same when digitalising ancient objects and modern industrial products. For example, to avoid damaging a machine, contact can be

Advanced Industrial Archaeology and Techno-Museology A new virtual life for industrial heritage

Dr Florent Laroche
Ecole Centrale, Nantes, France

sometimes be impossible or even forbidden: the technology must be used without touching the object.

Simultaneously, Knowledge Management methods which are commonly used by businesses must be coupled to historical studies. This step allows capitalising external knowledge, identifying know-how of workers, giving information about suppliers or customers, etc.

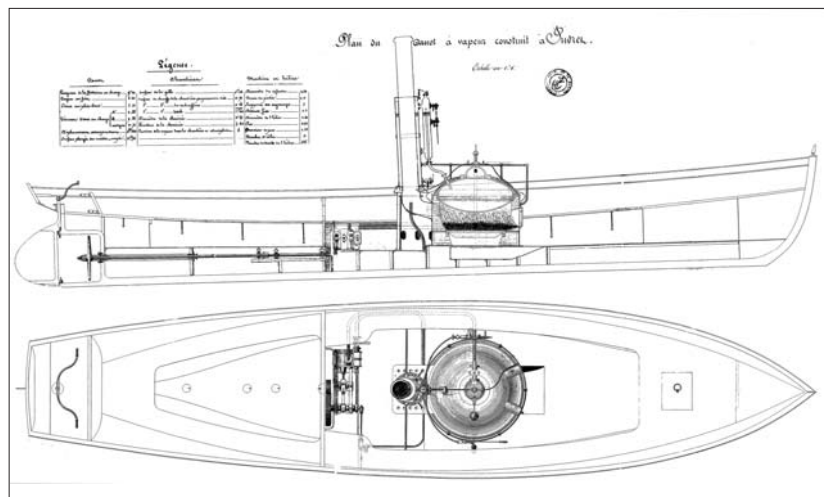
Next, the technical object and its environment are re-designed thanks to Computer Aided Design (CAD) software. Those programmes are commonly used by modern industries for designing complex products such as airplanes or cars. Considered as experimental researches or didactic applications, our teams use Catia V5 by Dassault Systèmes (the same software used for developing the Airbus A380 aircraft).

Moreover, even though old objects are mainly inert, they were animated by mechanisms that have to be virtually restored and simulated in order to validate their operation. At this step, we prefer to use CAD programmes instead of Computer Graphics programmes (CG). These are employed for creating animated pictures, movies etc. With CG programmes, simulations and dynamics are not realistic. An entire "virtual world" is created in which objects move but this world does not have the properties of the terrestrial physical laws such as the fundamental principles of mechanics (for example gravity, stress, speed, acceleration).

Then this heritage engineering phase allows obtaining what businesses call Digital Mock-Up (DMU). Nowadays, the digital model of a product is the principal element for industrial production. DMU is the converging point for organising departments of an enterprise: Research & Development, design, manufacturing, marketing, sales, etc. In the same way, the virtual representation of an old technical object can be associated, linked and enriched thanks to external cultural knowledge and anthropological know-how: it is what we call the Digital Heritage Reference Model (DHRM). This Technical Heritage File allows the knowledge from the past to be incorporated into a digital media and a virtual simulating state. In this way, the DMU can become a new museological tool and a reference model for museum curators. Obviously we must insist that digital files will never replace physical objects. The DMU is only another way to represent reality: it is a new, wider definition of the artefact.



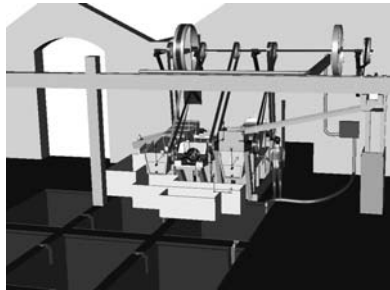
Two of the experiences we have performed in France. The input data of the study was one drawing of a steamboat designed in 1861 by DCNS.



The value of using digital representation is to help experts or museum curators, but it has other applications, too.

Old machines do not usually function or cannot be exhibited in a museum due to problems of cost and security (component wear, machine driver requirement, etc.). Nowadays, thanks to virtual reality technologies, the DHRM can be used to present the artefact. Unlike videos and thanks to interactivity, it is easier to understand how they work: the visitor is no longer a spectator but an actor. Virtual Reality is a new mediation tool that allows visitors to immerse themselves in a virtual environment: the machine can be tested virtually to its extreme limits; the level of detail can be adapted by the museum according to the targeted public, etc. Indeed, it lets the visitor investigate himself the technical system from their own point of view (global immersion, technical analyses, local study of components, social integration of the technical environment, etc.).

Understanding an old technological object can be easy for former workers but it can be



difficult for curators or visitors of their museums. Virtual Reality tools can become a springboard for ensuring that the know-how of our scientific and technical industrial heritage will be apprehensible and comprehensible by everyone. This is the next step after Advanced Industrial Archaeology: we call it Techno-Museology, a new kind of museology for this 3rd millennium.

Dr Florent Laroche, Ecole Centrale, IRCCyN, 1 rue de la Noë, 44000 Nantes, France

A salt washing machine (c.1914-1963) belonging to the Musée des Marais Salants in Batz-sur-Mer in Brittany.²



florent.laroche@ircsyn.ec-nantes.fr
<http://florent.laroche.free.fr>

1. Michel COTTE and Samuel DENIAUD (2005) 'CAO et patrimoine, perspectives innovantes', *Archéologie industrielle en France*, 46, June, p. 32-38.

2. The author's article on reverse-engineering the salt washing machine at Batz-sur-Mer is published in the current issue of *Archéologie industrielle en France*, 51, December 2007, and can be downloaded from the CILAC web page.

Caribbean

Industrial Heritage and Archaeology in the Caribbean

David Hayes

■ The concept of industrial heritage in the Caribbean has often been interpreted as the preservation of the large structures that dot the landscape. These chimneys, factories and windmills are monumental in the current visual landscape. The structures also carry many meanings. To some, they are the glorious remains of a wealthy past. Others see them as monuments to the Trans-Atlantic slave trade. They also serve as a source for cheap and good building material to create a 21st century lifestyle. The rarely preserved and commemorated buildings are those that housed the enslaved Africans and the later descendant and indentured workers.

A more inclusive, nuanced and cultural view is coming up the heritage community, albeit slowly. Speaking largely of the Anglophone Caribbean that is now mostly independent nations with populations largely descended from the enslaved Africans, the old paradigm of these structures glorifying the plantocracy is being supplanted by a view that emphasizes the enslaved African contribution to the colonial world.

Historians, starting with Eric Williams, have discussed the view that much of the money and then management skills of the Industrial

Revolution in the UK started in the sugar colonies of the Caribbean. In the 17th century sugar planters were managing operations of up to several hundred enslaved Africans on a time-constrained plan. The profits produced by this enterprise were enormous and disruptive of the then existing social systems. The balanced view that the enslaved Africans contributed more than just their lives to the social world of the Caribbean, while disruptive to the small Euro-American wealthy class, is very popular with the larger population. The contribution of the Asian immigrants is also being more fully noted now.

Industrial Archaeology has a critical role to play in the future of industrial heritage, indeed in all Caribbean heritage. As archaeologists we can ask, and sometimes answer, those questions that broaden the interpretation of the island specific cultural development.

The first idea that we must present is that the enslaved Africans built the structures we have today. Yes, there was European technology in the process but the labor in the heat was African. Few young men or women want to become skilled masons or carpenters today, failing to realize the environment they live in was built by skilled craftsmen.

The Caribbean is a complex creole culture. Spanish, Portugese, Jew, Protestant, Catholic, English, African, French, Swedish, Dutch, Danish, Indian, Chinese, Arab, American and the native cultures of the Americas all had a part in the creation of some 30,000,000 people alive today and living in the Caribbean, not to mention millions elsewhere.

As archaeologists we can recover the material remains of the ancestors of the current culture. The industrial world and the technology and local adaptations are critical to that. In the Caribbean simple slide valve steam engines were still being ordered late into the 19th century, years after more efficient technology was the norm elsewhere. This local choice is clear in the archaeological record. What does that say about the economy and social milieu that existed? The newer technologies are being ordered for equipment inside the factory.

Many people like to quote the various slave laws that are horrendous as evidence of the world of the enslaved African. As the planters were capitalist, some before the word was invented, they had money as their goal and the means were not critical. They were charged with enforcing the laws that sometimes converted what was to them a useful asset into a drain on their money. How often did they use the extreme measures called for in the law? Viewing a plantation as an industrial site includes the use of land as cemeteries. Excavation of these human remains, with full regard for the descendant community and modern laws, can reveal more of the actual

lives of the enslaved and free peoples.

The use of industrial archaeology and the industrial heritage of the Caribbean islands can deepen our understanding of the culture(s) of our islands. This will also deepen the knowledge and appreciation of the interrelationships among all the people of the current world. With that we can honor and commemorate the complete complex lives of those who built the structures we so often see but do not appreciate in the island landscape. With many of the islands now looking to eco-heritage- tourism as their new savior revenue source, we must not lose the heritage for some promise of a fast dollar and no local control over the presentation of the local heritage and culture.

david_hayes_stx@yahoo.com

France

Espace Alu, the Museum of Aluminium

Florence Hachez-Leroy

Université d'Artois, France

■ *Espace Alu, Musée de l'aluminium* in Saint-Michel-de-Maurienne (Savoie, French Alps, France) opened on November 30th, 2007. It is the first museum in the world entirely dedicated to the history of the 'light metal'. The approach is a multidisciplinary one and includes geology, scientific research, technical processes, labour management, societal and cultural issues, literature etcetera. Six of the eleven aluminium plants built in the French Alps after 1892 were in 'Aluminium Valley' as the Maurienne Valley became known. The last one was set into operation in Saint-Jean-de-Maurienne itself in 1907 and is one of the oldest smelters built in Europe. We couldn't consider restoring any of these to host the museum as they were dismantled soon after production ended and no other relevant industrial building was available in the town. After a feasibility study, a former vicarage was chosen as the location of the future Museum, a building large enough and conveniently situated in the historic heart of the city. The building's size made the choice of a rich iconography and videos an imperative requirement.

An electrolysis plant couldn't be reconstructed but tools and industrial items are added to provide the atmosphere of aluminium smelting. The exhibition traces the history of aluminium as a material and the aluminium industry in France, set into an international perspective, from the 19th century to the present. Since the end of the 19th century, aluminium plants had a considerable impact on the landscape, the local economy and the society of the Alps. The first part of the tour offered to visitors explains why manufacturers chose to come to Maurienne and settle there. The valley's history is recalled, from prehistoric times to industrialization, as well as the end of the

aluminium industry and post-industrial reconversion, by means of an audiovisual device which shows pictures one after the other on a valley model, figuring time changes. Other episodes deal with the history of each of the six plants built in the valley; the exhibits insist on the necessity "to tame torrents" to make electricity, which was essential to the aluminium production, and the community facilities set up by the manufacturers to improve their employees' living conditions. Finally, the economy of the French aluminium industry and its development, compared with its European and international competitors, completes the show.

Through the "materials' staircase", a large timeline by which the appearance of aluminium is situated in general history, one reaches a magnificent scenery of bauxite mining. Bauxite is the ore from which alumina is produced. It was named after the village Les Baux-de-Provence in southern France, where it was first discovered in 1821. Its geological history is explained as is the quest to isolate the metal and find aluminium production processes. Explanations are historical and technical, and given on a pleasant didactic mode: cubes which must be turned, videos, rollers to be adjusted, periscopes and so on.

The smelting plant's world in the 21st century is suggested by quite different means: visitors, through various media which include a model of cellar AP 30, observe the electrolysis process and understand the operations which are part of the electrolysis series. The scientific and technical dimension is not forgotten: through videos and handlings, the visitor understand the characteristics of the metal and the transformation processes.

The last episode, entitled "The Age of Aluminium", is dedicated to the world of artefacts. The evolution of our daily life and the advance of aluminium in everyday use over more than one and a half centuries are set in showcases in thematic and chronological order: the Sainte-Claire Deville's period, World

War I, household electrical appliances, tableware, the "Pop" culture, leisure, toys, packaging... Items from the Jean Plateau-IHA collection guarantee the visitors' surprise and pleasure. Numerous donations received and purchases by the museum complement this outstanding collection.

Finally, the third level of the building entitled "At work!" recalls the improvement of working conditions in aluminium plants through a circular audiovisual entertainment. Testimonies of former employees and some symbolic objects of the aluminium production are presented: working clothes, ingots of foreign plants, moulds, ladles, laboratory material, medical instruments...

The visit ends with a literary walk which picks out the term "aluminium" in literature through quotations of Jules Verne, de Lautréamont, Flaubert, d' Ivoi and Garcia-Marquez.

The visitors leave the museum by a magnificent wooden staircase endowed with a central mast provided with translucent shelves on which items donated mostly by the inhabitants of Saint-Michel-de-Maurienne are arranged. The piling-up effect is a real success, as the variety of artefacts as common as aluminium milk pots or coffee pots may have is clearly shown.

Espace Alu is not dedicated to nostalgia: its purpose is to pass on to future generations the history and uses of aluminium as well as the memory of the Maurienne industrial valley. Rooms are designed for temporary exhibitions, educational workshops are planned, while artefacts in showcases will be regularly renewed.

Saint-Michel-de-Maurienne (pop. 3,000) received financial assistance from Europe, the Rhone-Alpes Region, the department of Savoie, the French state (FNADT), aluminium Alcan Saint-Jean-de-Maurienne plant, the Leader + European programme, the Commonwealth of communes Maurienne Galibier, the Credit Agricole Foundation and Electricity de France, Alps production unit.



The former vicarage, now museum, seen from outside. © Bouillard

Overview of 'Aluminium Age' with its showcases designed by G. Courat. © Bouillard.

The wooden staircase and objects from the Jean Plateau-IHA collection. © Bouillard.



The Imperial Haliç Arsenal, Istanbul. (See www.muslimheritage.com for more on the growth of Ottoman shipbuilding).

On of the dry dock in the Haliç Arsenal.



To bring this project to a successful conclusion, the mayor of Saint-Michel-de-Maurienne, Félix Anselme, brought together historians through the Institute for Aluminium History (www.histalu.org), of which I was at this time the scientific secretary; the Abaque agency was responsible for the museum programme; the project was entrusted to the architect Bechetoille, the scenography to Pig Images agency and I was the author of the scientific interpretation..

The mayor raised a budget of approximately €2 m and relied upon a board of scientific advisers where one could find the Musée des Arts et métiers (Paris), the heritage administration of the Savoie department, Galerie Eureka (CCSTI-Chambéry), the Mineralogy Museum of the École des Mines de Paris... and other high-level scientific bodies.

Espace Alu, place de l'Église, 73140 Saint-Michel-de-Maurienne, France
www.espacealu.fr

Mexico

Textile Museum of Oaxaca

Ana Paula Fuentes
Director

A long-abandoned colonial-style structure in downtown Oaxaca has found a new life. The Spaniard who first lived in this house in the late 18th century never could have imagined that his home would be revived more than 200 years later as a testament to the craft that allowed him to build his fortune. Angel Antelo became a wealthy merchant by exporting grana cochinilla, the cactus-plaguating insect that indigenous peoples have used since pre-Columbian times to dye rugs and garments. His former residence, at Av. Miguel Hidalgo 917, on the grounds of a nearly 500-year-old convent, fittingly is being reborn as El Museo Textil de Oaxaca.

The idea for the museum came four years ago to the museum's three major benefactors – famed painter Francisco Toledo, textile researcher Alejandro de Avila and Maria Isabel Grañén Porrúa, director of Library Francisco de Burgoa. The trio expected to house their dream in a building donated by the Oaxaca state government. When that fell through two years ago, the Alfredo Harp Helú Foundation stepped in, purchasing the former Antelo property and funding its restoration, overseen by architects Sebastian Van Doesburg and Juan Jose Santibañez.

Toledo, de Avila and Grañén envision El Museo Textil de Oaxaca as an active museum that will educate, preserve and promote the art of textile manufacturing, providing a vision of textiles from Oaxaca, México and the world with temporary exhibits. In this museum the public may become involved in a universe of designs, textures, techniques and creative processes of both traditional and contemporary textile art. For now, three collections totaling 4,000 pieces



will provide the foundation for the facility. Grañén has donated her collection, much of it covering the 1950-1980 period and purchased from Crispin Morales, a former vendor in Oaxaca's central market. Toledo's contribution came from his purchase of a collection owned by Madeline Humm de Mollet, a Swedish woman who amassed works from Mixtec, Zapotec and other ethnic groups, covering 1960 to 2000. De Avila, the museum's curator, rounds it out with a 1930-1970 collection inherited from Ernesto Cervantes, the former owner of Casa Cervantes in Oaxaca.

As part of the educational plans, the museum will offer conferences, lectures, workshops and trips to outlying villages, the opportunity to visit the library filled with textile documents and other research materials, as well as videos. For the conservation and caring of the textile collections, the museum has a restoration workshop and a special storage for their safeguard.

The Textile Museum was open the 20th April 2008.

www.museotextildeoaxaca.org.mx

Turkey

Industrial heritage in Istanbul

Ass. Prof. Dr. Gül Köksal
Director

The industrial archaeology of Istanbul is starting to attract international attention and efforts to conserve and interpret the most significant elements. Santralistanbul, an early 20th century thermal generating station, and the Cibali Tobacco Factory are both university projects which reuse former industrial sites. Here Professor Köksal of the Architecture Department, University of Kocaeli, presents the context of industrialization in the Ottoman Empire.

The establishment of industrial plants in Ottoman Empire was accelerated by the technological support that was mostly provided by European countries. The Ottoman Government followed closely international developments and brought the new technologies without loosing time. Especially in the 19th century, many industrial buildings in almost all sectors were constructed in the Ottoman Empire by both the government and the private sector. Istanbul, the capital city and

the centre of state power, and its neighborhoods was the place where initiatives of industrialization were most concentrated. The city had a sufficient transportation network for transporting the raw materials or the finished products and became the centre of industry for the Ottoman Empire especially after 1850. With the help of foreign capital, workers and technology the number and type of factories in various sectors that were established in the city increased substantially. The industrial heritage of Istanbul is a significant component of the Ottoman Empire's technological history and has taken an important part in Istanbul's physical development. The industrialization of Istanbul best reflects the industrialization attempts of the Ottoman Empire.

Location of the industrial plants in Istanbul was based on the nearness of raw materials required for operation. Towards the end of the 19th century, the coasts of Istanbul and the sparsely inhabited regions were preferred for establishing industrial plants. At the beginning of the 20th century, up to 55% of the industrial establishments in Ottoman Empire were in Istanbul. In the 19th century, there were 256 factories and manufacturing or production plants in Istanbul, on energy, food, clothing' textile, leather, metallurgy, soil, timber and chemistry; 34 of these were on the Anatolian side, 221 on the European side and one on Büyükkada.

Based on the limited current data, it is possible to say the following about the industrial architecture of the Ottomans:

- Cast iron has been used as main structure (for example in the Haliç Dockyards etc.) especially after the mid-19th century.
- Factories have extended horizontally in accordance with the requirements or developed by construction additional buildings (for example Imperial Fez Factory etc.).
- Neo-classical façade properties were preferred for government factories.

- Generally, there is a simple architectural planning: functionality and minimal decoration. There are some exceptions, however, of important factories given special emphasis such as the Imperial Canon Factory, Haliç Dockyards, Imperial Fez Factory etc).

Mostly foreign architects were commissioned in the construction and operation of the factory. Early 20th century factories have been recognized by important Turkish architects like as Vedad Tek and Seyfi Arkan or the French architect Rob Mallet-Stevens. The factory managers in the 19th century were mostly educated abroad. The factories in Istanbul were using water in the beginning, and then converted to steam power after the wide usage of steam power in Europe.

Nowadays many problems arise due to the unplanned industrialization. It has been observed that many important industrial plants in Istanbul were in full capacity until the 1980's and have closed slowly after this date. Today when looked at the industrial buildings or complexes in Istanbul, much of the industrial heritage from 19th and 20th centuries has been considerably lost. Only 43 of these exist

and some of them are still in use, keeping their original function. Recently, the re-use of old factories is on the agenda. Preserving the industrial heritage to the next generations requires to keep the specific features of the buildings as well as making them to participate

in the city life with a suitable function. Within the scope of "industrial archaeology", which is a new discipline in the world, the value of industrial heritage in Istanbul should be considered.
tgulkoksal@gmail.com

Köksal, T. G., 2005, Some Proposals for Recording, Conservation and Reuse of Industrial Heritage in Istanbul (Turkish), Science Institute of Science and Technology, Istanbul Technical University, Doctorate Thesis, Istanbul

Ticcih seminar on training and education

Stockholm and Norberg, 8-11 June 2008

Professor Marie Nisser

Over the past years, training and education in the field of industrial heritage has been a special concern of TICCIH's. Since the arena for industrial heritage activities has continued to expand, professionalisation has become more and more necessary. Landscape designers, architects and town planners are being contracted to transform former industrial areas and landscapes. The cultural heritage sector needs professional consultation in how to deal with our industrial heritage. The demand for expertise has increased and the job-market for students is expanding. We have also seen a recent strong trend among universities towards the internationalisation of higher education in general. There has been a growing number of universities that offer full-time programmes or part-time courses in industrial heritage studies, and courses to upgrade certain skills in industrial heritage management.

It is against this background that the Section of Industrial Heritage Studies at the Royal Institute of Technology (KTH) together with the Swedish Association of Industrial Heritage, with TICCIH, organised a seminar on training and education in Stockholm and Norberg, a small mining community in the middle of Bergslagen. The seminar was truly international with 25 participants from Europe, Asia and America. All were heavily engaged in the subject and the discussions became very focused, intense and creative. They opened up new perspectives and formulated new questions. It became evident how fruitful and rewarding international co-operation on training can be.

The opening session in Stockholm had presentations from Eusebi Casanelles, Sir Neil Cossons, Professor Patrick Martin and myself. The primary aim of the seminar was to get an overview of the current training situation around the world and participants contributed a written report on current activities in their countries or universities. These will be edited and published on TICCIH's web site later this year. A second target was to identify the need for a joint international Master's program and to discuss courses to meet the needs for specialisation in various fields of industrial heritage.

Part of the discussions was devoted to questions like finding a definable discourse and a terminology for industrial archaeology and industrial heritage and whether "industry" is a turn off in the cultural heritage context. It was stated that it has taken a long time for industrial heritage activities to be acknowledged as a "bona-fide" subject. Today, however, the options for training and education within the field do not meet the demands. For that purpose it is important to revise and supplement existing training programmes in an international context and for a job market is also becoming increasingly international.

A number of universities have long experience in industrial heritage training. Birmingham University with the Ironbridge Institute was the first to start a teaching and research program some thirty years ago. The Royal Institute of Technology at Stockholm and the Technical University at Freiberg had their chairs in Industrial Heritage Studies and Research set up in 1992 and some years later chairs were created in Leicester, UK, and Michigan Technological University, US. Freiberg Technical University and Michigan Tech have launched Master's programs for industrial archaeology and so have the universities of Padua, Paris and Evora as the joint Erasmus Mundus TPTI-programme. During the 1990s, a Nordic-Baltic multi-disciplinary programme was run by the Industrial Heritage Research department at KTH in collaboration with a number of other universities and heritage organisations.

The main achievement of the seminar was agreement of the urgent need for a truly international Master's programme with global recognition but also to look into the demand for specialised courses for different needs. The content, the time schedule, the curricula, the localisation of such a programme was intensely discussed as were the questions of funding, the benefit of field-work, the need for a theoretical frame-work and a research agenda, credits, examination, readings etc.

A second workshop will be organised by Michigan Tech in September 2008 and the discussions there will continue in a smaller working group and focus on the curricula of an international Master's program.

A more detailed summary of the discussions as well as the conclusions will be available on TICCIH's web site later in the summer. A TICCIH section for industrial heritage training was also proposed and should be present at our Congress next year and Marie Nisser will prepare a proposal for a session. Anyone

interested in taking part in the TICCIH session during Freiberg 2009 please contact Marie Nisser (nisser@kth.se), Congress Secretary's Office (info@ticcih2009.de) or James Douet (ticcih@gencat.cat).

Future Directions for the Archaeological Study of post-1550 Britain and Ireland

University of Leicester, UK, 4-6 April 2008

Marilyn Palmer

Emeritus Professor of Industrial Archaeology, University of Leicester

The conference called *Crossing Paths, Sharing Tracks* attracted nearly 100 delegates which included TICCIH members from the USA, Denmark, Great Britain and Rumania. It was organised by Dr. Audrey Horning, Secretary of the Society for Post Medieval Archaeology and the Irish Post-Medieval Archaeology Group, and Professor Marilyn Palmer, Chairman of the Association for Industrial Archaeology. The conference theme was prompted by the long-running and challenging debate in *IA News* on the relationship between theory and practice in industrial archaeology, and was intended to enable members of each organisation to put forward their viewpoints on the study of the material heritage of the post-1550 period. It was also intended as a follow-up to the conference in Nottingham which preceded the publication of *Understanding the Workplace*.

The discussion-focused conference enabled some lively debate to take place on the role of technology in this period as well as the significance of other artefacts. The theme was encapsulated in Michael Nevell's paper on *People versus machines or people and machines* as well as Geoff Egan's *Things for people*, a paper which considered the ways in which people made use of small objects. Other speakers covered a whole range of topics, including the re-development of one of London's railway viaducts, landscapes of coal in North Antrim and the Isles, industrialisation and rural settlement in north-west England and the design, evolution, and management of English industrial landscapes. Professor Charles Orser, one of the world's foremost historical archaeologists, presented a paper looking at the different scales on which sites of the later historical period can be studied. Professor Patrick Martin of Michigan

Technological University and the Society for Industrial Archaeology in the USA presented a paper entitled, *The Pitfalls of Pigeonholing: Progress or Polemics* which included discussion of the archaeological and historical work that his students have been carrying out on the West Point Foundry, Cold Spring, New York, while Professor Stephen Mrozowski of the University of Massachusetts, Boston (and co-author of the much-cited work on the corporate ideology shown in the historic environment of Lowell in Massachusetts),

summarised the conference in his concluding paper, *Pulling the Threads Together: Exploring the Fabric of the Modern World*

The purpose of the conference was to foster enhanced understanding and cooperation between the organisations and their approaches, with in-depth consideration of the future of the broader field of historical archaeology. The organisers were looking for ways to avoid fragmentation of a still small discipline into subfields such as pre-1750 post-medieval archaeology and post-1750

industrial archaeology, as well as achieving a compromise between techno-centric, artefact-centric or theory-centric approaches to the discipline. The papers are to be edited by the organisers and published in the autumn of 2008 as a Society for Post-Medieval Archaeology monograph which will also bear the imprint of the participating societies. This volume will bring the debate from the conference to a wider academic, professional and volunteer audience.



Cattedrali del mare

Francesco Calzolaio

Edigraf, Rome
Italian and English
45 € plus postage from Venti di Cultura
info@cattedralidelmare.it
www.francescocalzolaio.it
(Free postage for TICCIH members)

This book tells the story of an unusual and refreshing approach to the study and conservation of coastal industrial archaeology. The author put together a complex project involving a maritime tour of twenty-four ports around the long Italian

coastline to highlight the often neglected sites that can be found. He then sailed all round the coast visiting each one all during the spring of 2007 in the *Liberty Tug*, a 1948 motor launch. Starting in Buggerru in Sardinia and ending at the Arsenal in Venice, events were arranged with the local authorities at each stop to focus attention on a particular 'Cathedral of the sea', and to put each one in the wider context of Italy's superb maritime heritage.

The *Liberty Tug's* tour is now published in a splendid hard back book with photographs from the voyage and a description of each of the sites. The author was so happy with the project and especially with the local reaction to the attention to the various sites that he has grander plans for an international tour taking in several Mediterranean countries.

TICCIH Conferences

For all conference information consult www.mnactec.cat/ticcih/agenda.php

China

First Chinese International Conference on Industrial Heritage

Chengdu, 10-15 October, 2008
Call for papers (deadline for submission August 31)

■ The conference will have five workshops: I. Theory and Method on Conservation of Industrial Heritage, II. Case Studies on Conservation of Industrial Heritage, III. Conservation and Management of Traditional Industrial Heritage, IV. Transfer of Technology during the Development of Industry, V. Reconstruction of industrial heritage and natural disasters. FREE registration, meals and travel during the congress. Presentations in English and Chinese.

Final registration by 1st August
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, T: 0086-28-84325686, F: 0086-28-84355056, f: +86-10-62751187

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. Info: Helmut.Albrecht@iwtg.tu-freiberg.de or see the congress website: www.ticcih2009.de

World Conferences

Canada

The International Committee for the History of Technology ICOHTEC:

35th Symposium on Crossing Borders in the History of Technology
Victoria, 5-10 August

■ 35th symposium on crossing borders in the history of technology.
Info: <http://icohtec.uvic.ca>

ICOMOS 16th General Assembly and International Scientific Symposium

Montreal, September 29th-October 4th, 2008

■ TICCIH will be represented by various members of the Board. See the TICCIH website for details.

France

Mining landscapes, a disputed heritage

13, 14 and 15 November 2008

■ Centre historique minier de Lewarde. Conference organised by CILAC and the Centre historique minier. Info: Complete programme and inscription form at form at www.chm-lewarde.com and www.cilac.com