



REINVENTING THE SCIENCE MUSEUM - THE MUSEUM OF SCIENCE AND INDUSTRY IN MANCHESTER AND THE REGENERATION OF INDUSTRIAL LANDSCAPES

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When it was suggested that I should give the European Museum Forum Annual Lecture for 2001 in Gdansk, it was an invitation that I was keen to accept. I have paid two previous visits to Poland that have provided an opportunity to experience aspects of the country's fascinating heritage and culture. My first visit was a meeting of ICOM-CIMUSET, which provided me with a fascinating insight into the industrial archaeology and technical museums in this country. My second visit was to see a candidate in the European Museum of the Year competition, the Vodka Museum at Lancut. I have never been to the northern part of Poland, however, and I have a particular reason for doing so. One of the buildings that house The Museum of Science and Industry in Manchester has a strong link with the Baltic states. Great quantities of timber were used in the construction of a warehouse built in 1830- the oldest railway building in the world. It may well have been exported through Gdansk, and during my visit I would like to find definitive evidence. It is a topic I will return to later in this paper.

This lecture will take as its starting point an article that I wrote for Museum International in 2000 about the changing nature of museums of science and technology. From that I will move on to describe four projects on which the Museum of Science and Industry is working at present. I will then look at regeneration issues, illustrated by the city of Manchester. I think you will find that there are parallels for industrial cities in Poland.

All museums must evolve in order to remain fresh and relevant. For science museums there is a particular necessity to embrace change, as science itself is in a constant state of transformation. So too is industrial society, in the so-called post-industrial age. The Museum of Science and Industry in Manchester is relatively young, having first opened in 1983, but a phased development programme has enabled us continuously to re-examine our objectives and techniques.

This is our Mission Statement:

The Museum of Science and Industry in Manchester will use its remarkable site, the world's oldest railway station, and its collections to create a museum of international standing which has as its overall theme the industrial city, thereby capitalising on Manchester's unique past, contributing towards its future prosperity and fostering the pleasure of understanding for a broad public.

The first years of the twenty-first century are witnessing the culmination of two decades of development, and the adoption of a strategy that will ensure that the

Museum does not fall into the trap of being considered 'finished'. There will always be the necessity of modernising exhibitions, adopting new techniques of presentation, communication and management, and responding to changes in society that are difficult to predict. If the Museum is successful, it will continue to reach its goal of fostering the pleasure of understanding for a broad public. If it does not innovate, it will be regarded as irrelevant, and the high level of public support it enjoys now will diminish.

The starting point for the Museum is its commitment to use its remarkable site, the world's oldest railway station. When the Museum started we were faced with a daunting prospect - a collection of imposing listed buildings of great historic and architectural interest, but which were in an advanced state of dereliction. It was clearly going to be a challenge to develop a master plan within which buildings could be repaired and brought into use, at a speed largely determined by the availability of money. We adopted a phased approach so that the redevelopment could be broken down into many components. Each of these could be undertaken as finance became available, all contributing to the goal to create a museum of international standing. In the first phase, in 1983, there were 4,511 square metres of gallery space. Further phases increased the exhibition area to 11,146 square metres by 1998. A further massive expansion started in 1999 that will result in a total of 19,053 square metres of exhibitions being available to visitors by 2005. Some of the exhibitions have already opened. In addition, of course, there are all the support facilities ranging from collections stores to restaurant, shop and conference centre.

The five historic buildings are one of the Museum's greatest assets. Not only are they important in themselves, they also provide an atmospheric setting for exhibitions. The 1830 Warehouse, for example, is a very significant building in the history of railways. Our strategy to rescue it from a ruined state, adapt it for public access, and use it for exhibitions has resulted in a historic environment capable of accommodating contemporary displays. Indeed, the historic use of this pioneering warehouse gives added value to the two major themes of the future exhibitions: Communications, and Food for the City. The approach we adopted towards the restoration of the warehouse was to treat it as one of the most important objects in our collection. It was therefore important to gain a full understanding of the building by researching it as fully as possible. An archaeological survey revealed a wealth of fascinating detail, including 600 sets of mysterious marks on pine timbers from which the frame of the building is constructed. I have made it a personal research topic to try to understand what they signify. I have published a number of papers on my findings, but there is much still to discover. I will summarise the results of my research. In 19th century Britain there was an increasing shortage of good quality timber due to the rapid pace of industrialisation. Timber had been imported into East Coast ports for centuries, but by 1800 Liverpool on the West Coast was also importing timber. Much of it came from the Baltic. I have no doubt that the wood used in the construction of our warehouse had its origin in the Baltic, and the marks provide the clue. I will describe, briefly, how the trade operated. Timber merchants would purchase areas of mixed pine and oak woodland from landowners, who were often members of the Russian aristocracy. During the

winter months the trees were felled and roughly shaped, and then dragged over the frozen ground to rivers where large rafts were built on the ice. In the spring, the rafts were floated down rivers such as the Vistula. In the ports, including Gdansk, the timber was sold to English merchants. This is where the marks were made on the timbers. An official, known as a bracker, was employed by each port to provide an independent assessment of the quality of the timber and its dimensions.

The timber was loaded onto ships to be taken through the Baltic, across the North Sea and down the English Channel, and then up through the Irish Sea to Liverpool. Here it was unloaded, and the timber used in our building was brought up the Rivers Mersey and Irwell to Manchester. Records in the Merseyside Maritime Museum show that in May 1830, for example, cargoes of timber arrived on the Ceres and the Resource from Memel, the Nordstern and the Cecile from Gdansk and the Maria from Pillau. The construction of the buildings for the railway terminus was running late, and within just five months the timber had been used to construct the warehouse. In consequence, we may have a Polish forest, with some beams 20 metres long with sides of 0.35 m, as part of the Museum! It is a fascinating story, and where better for me to learn more about it than with this audience in the Polish Maritime Museum. I am aware of cargoes with inscribed marks on them that have been recovered from beneath the Baltic sea that are displayed in this Museum.

The Warehouse was finished in time for the opening ceremony for the railway on the 15th of September 1830. It was built to provide a rapid way of getting raw material imports, finished goods exports and people between the port of Liverpool and the manufacturing region of Manchester. The station buildings are, therefore, the ideal context in which to create a museum which has as its overall theme the industrial city, thereby capitalising on Manchester's unique past. As the first industrial city of the modern age, Manchester's story is of wide interest. It provides an ideal linking theme to bring coherence to the many topics to be found in a science museum. Thus Fibres, Fabrics and Fashion, which opened in 1997, deals with Manchester's role as a centre of trade in cotton goods - so dominant in world markets in the nineteenth century that became known as 'Cottonopolis'. Around the world, other countries had their 'Manchesters' - in Poland, it was Lodz. It is impossible to understand Manchester at the beginning of the twenty-first century without an awareness of its roots in the textile trade. The magnificent warehouses, modeled on Italian palazzi, stand as reminders of Manchester's textile past but they are also where the reinvented city of today began. Conversion of these fine structures into hotels, loft apartments, design studios, bars and pubs, offices of computer software houses, radio stations and restaurants is part of the reinvention of Manchester. The Museum of Science and Industry in Manchester has provided a model for such adaptation of historic buildings to deliver the Mission Statement goal of capitalising on Manchester's unique past, contributing to its future prosperity. Now we are participating in a bid to have Manchester recognised by UNESCO as a World Heritage Site in view of its contribution to the development of industrial society. Whilst it would be too soon to declare that everyone is convinced of the value of industrial landscapes for their historic importance and as a basis for regeneration, there are now striking examples of successful

adaptation and preservation. Around the Museum of Science and Industry was a depressing landscape of decay and dereliction. Businesses had abandoned the area, the canals had closed and had sometimes been filled in, and rubbish was everywhere. Since the mid-1980s the transformation of Castlefield, as this area is known, has been dramatic, and it is now recognised internationally as a model of regeneration of an industrial landscape. The impact has widened to much of the rest of central Manchester. Canals have been reopened, factories and historic offices have been converted, open spaces have been created, and striking new buildings have been erected. Manchester has now regained much of the self-confidence it enjoyed in the nineteenth century. The Museum of Science and Industry is proud of the part it has played in helping to start that process.

That is not the only way in which we serve contemporary society. In common with most science museums, we place education high on our agenda. Our new Learning Centre provides us with the facilities to extend our service that has a high reputation with schools (80,000 visits by children a year) to adults as part of national initiatives on life-long learning. Our Digital Access Centre allows visitors to try for themselves the technology that is developing at breakneck speed to transform all our lives.

The regional economy is also a beneficiary. It is calculated that for every pound sterling spent by visitors at the Museum, twelve pounds is spent elsewhere in the local economy. With 300,000 visitors spending £1.5 million in 2000, the contribution to the prosperity of the region was £18 million. To this can be added the goods and services purchased by the Museum from local businesses, the employment of 120 people, and the investment in new exhibitions and building work. Many museums can claim a similar impact, but few do so - the cause of museums generally would be strengthened if there were greater awareness of their economic benefits.

I will now briefly describe four projects that we have recently completed, or which we will be undertaking in the near future. For the first of these we will return to the 1830 Warehouse. Once we had restored the building we were faced with another challenge. It looked impressive and attractive but it was empty and it was rather quiet and peaceful. And yet, this was where a revolution had occurred in the 1830s- the coming of the railways. Raw materials and food from all over the world had poured into Manchester through this building. How could we convey to visitors what it had been like to work here 170 years ago? We carried out extensive research into the lives of railway workers, how the warehouse operated, and the kinds of goods that were stored in the building. Two stock books that were found when the building was being restored helped us, listing goods brought into the warehouse. We then commissioned a specialist audio-visual company to work with us to produce a programme, Warehouse for the World that evokes the hard life of warehouse workers in a dramatic way. Using specially shot film that is projected onto brick walls, atmospheric lighting, sound and a commentary that uses writings and a song of the period, visitors are taken back to the pioneering days of railways.

Manchester Science will look at the practice of science in the context of one city. This is an approach that I do not believe has been attempted elsewhere, and it will bring home to visitors that science does not exist in isolation from society. Manchester is the city where John Dalton expounded his atomic theory, where James Joule conducted his experiments into thermodynamics, and where the first stored-program computer was developed. We have some good stories to tell! The preparation of this gallery is proceeding and, provided that we can raise the finance, we will open it within the next three years.

Our new Interactive Gallery will replace the Museum's Science Centre, which opened in 1988. That was a year that saw many science centres open in Europe, inspired by examples in North America, Singapore, and India. The approach, which we adopted, was to create exhibits that helped explain basic principles of science through a process of self-discovery. It proved successful and popular, but at the Museum of Science and Industry in Manchester we have decided to reinvent our approach. The Interactive Gallery will place exhibits more firmly in the context of the experience that visitors bring to the Museum, and will make explicit links with the other exhibitions. We have decided on our approach to the design of the gallery and we intend it open in June 2002.

Our fourth project is our Collections Centre. There is a growing trend in museums in Britain to open up the parts that have hitherto been closed to the public. The National Museums and Galleries on Merseyside established the success of this approach when it developed the Conservation Centre in Liverpool. Using exhibitions, guided tours, and even a video link to conservators in their studios, visitors are given insights into this fundamental area of museum work. In 1998 it was awarded the European Museum of the Year Award title. At the National Railway Museum in York, visitors can now tour the restoration workshops and one of the object stores. The British Museum and the Natural History Museum both have ambitious plans to open their collections to the public. Our project has similar objectives- to give visitors the opportunity to discover the wealth of material that is normally behind the scenes. This includes our archive with its collections of business records, photographs, and films, engineering drawings, textile pattern books and much more besides. Our object stores contain a wide range of material from printing presses to paper-making machinery, electrical equipment to cotton looms. The Collections Centre at The Museum of Science and Industry in Manchester will open to the public in September 2001. It occupies the entire basement of our main building (a warehouse built in 1880) and extends along a colonnaded area into which we have built a series of glazed stores, a photographic studio, a technical workshop and a facility for the reception of new items for the collections. There will be a welcome area for visitors where they will be able to seek help from members of staff and will be able to use computers to search the database on which our collections are listed. This will be linked to our website (www.msim.org.uk) where more and more of our collections, in digital form, will be made available to people throughout the world.

In addition to these projects we are trying to improve all other aspects of the experience that visitors get when they visit the Museum of Science and Industry

in Manchester. Kenneth Hudson, the founder of the European Museum Forum, campaigned hard for museums to raise what he described as their 'public quality'. This is something that we are determined to do ourselves. We use market research and evaluation to assess the needs of visitors and we try to respond by improving both the facilities and training of our members of staff. Making the Museum welcoming for people with disabilities is important. Ramps, wide doors, displays that are not too high, good lighting all help. So too does training of staff to recognise the needs of less-able visitors. We try to improve the experience for everyone and our newest facilities, opened during the past year, include an entrance building, a shop, an orientation area where visitors can find out what they can choose to visit on our large site, a restaurant, a lift and staircase tower, and a new system of signs.

Science and technology are international in their practice and application. They are also the products of people of many cultures. There is therefore an opportunity to stress the roots of science in many societies in our galleries and in our changing exhibition programme. China, Cradle of Knowledge was staged in collaboration with the China Museum of Science and Technology in Beijing, and involved many people from Manchester's Chinese community. Future exhibitions will include Science Tunnel, displaying cutting-edge research in contemporary science created by the Max Plank Institute in Germany for Expo 2000, and Forest and Me produced by Heureka, the Finnish Science Centre. In view of the Baltic timber that was used in our 1830 Warehouse, it is particularly appropriate that we will be hosting this exhibition on wood from another Baltic country, Finland. Another planned collaboration will take place with colleagues in India as part of an Anglo-Indian Science Festival. International networks, such as ICOM-CIMUSET, ECSITE and the European Museum Forum are vital to make such collaboration possible.

For The Museum of Science and Industry in Manchester, reinventing its role is an evolutionary process. As our major expansion occurs over the next few years it is our intention to take a global approach to our mission while still reflecting on the significance of science and technology to Manchester. We believe that this will allow us to communicate with people of our region, and also to fascinate visitors from further afield. We also hope that the example of Manchester as a place where industrial buildings and landscapes have formed the basis of effective urban regeneration will encourage these aspects of our common heritage to be valued, preserved and re-used elsewhere. The port city of Gdansk is another example of the way in which the preservation of historic buildings has allowed its identity and distinctiveness to be retained. At a time when economic liberalism and cultural globalisation are threatening the preservation of industrial landscapes it is vital that museums play a leadership role in raising awareness of their value. The European Museum Forum certainly regards that as part of its mission. By bringing together people whose experiences extend across the whole of Europe, we as individuals can use international examples of museum-led regeneration to convince those in authority of the importance of historic industrial landscapes as part of our common cultural heritage.

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