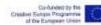
European Route of Industrial Heritage

European Industrial Heritage

the international story

EUROPEAN INDUSTRIAL HERITAGE: THE INTERNATIONAL STORY

Peter Wakelin (Not Barrie Trinder)





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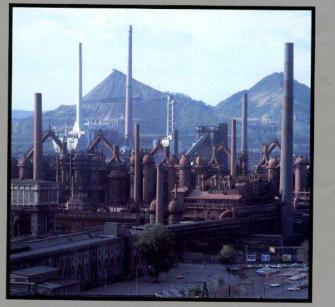
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THE BLACKWELL ENCYCLOPEDIA OF Industrial Archaeology



Edited by Barrie Trinder Axel Fohl · David H. Shayt · Stuart Smith · Michael Stratton · Robert Vogel

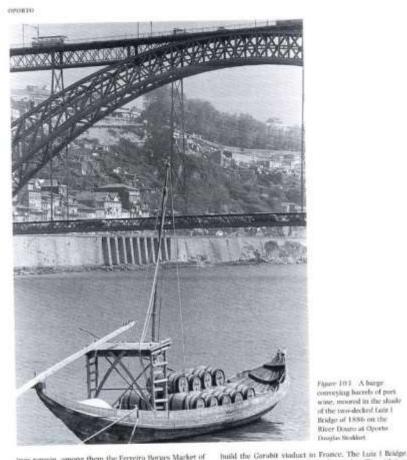


Figure 103 A barge conveying bacrels of portwine, moored in the shade of the two-decked Loin I Bridge of 1886 on the River Douro at Oporto Daughas Nicelikhett

opened in 1886, has two decks for road traffic, with two

spans of 392 m (1286 ft.) and 174 m (571 ft.). It was

designed by T. Seyrig, and built by the Belgian company.

Societé Willbrock of Brussels, replacing an iron suspen-

sion bridge of 1843 of which two granite columns remain

on the right bank of the river. In 1870 the council of Oporto

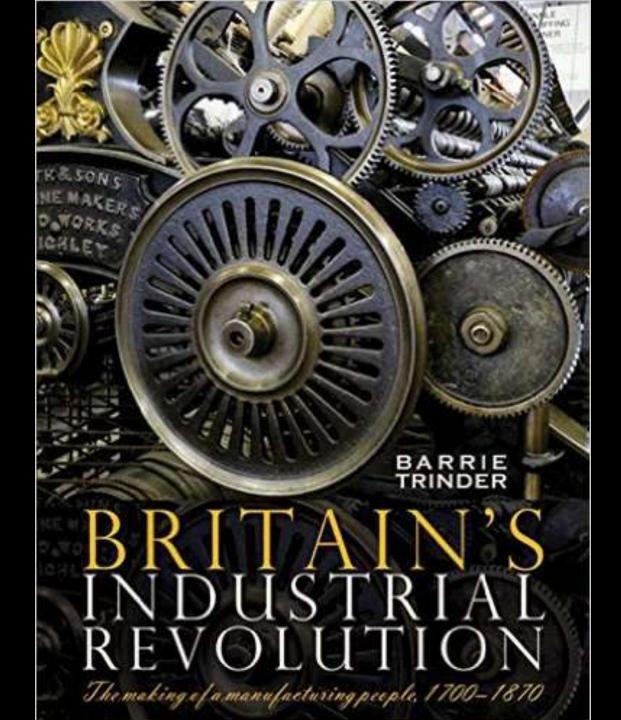
gave a concession for an urban radway line from floavista

to For to what became in 1873 the Companhia Carril

Americano do Porto a Fox (Oporto-Fox American Tram-

ings remain, among them the Ferreiro Borges Market of 1888, recently renovated as a council exhibition gallery. and the 'Patia das Naçõey', a remarkable framework over the closter of the Palacio da Boba, designed by the Portuguese architect Tomas Soler in 1882. The two from bridges over the Douro are the outstanding monuments of the industrial era in the city. The Maria Pia Bridge of 1877 has a 344 m (1129 ft.) deck for a railway track, 60 m (200 it.) above the river, and enabled its designer, superver faren, to gain the experience that later enabled him to

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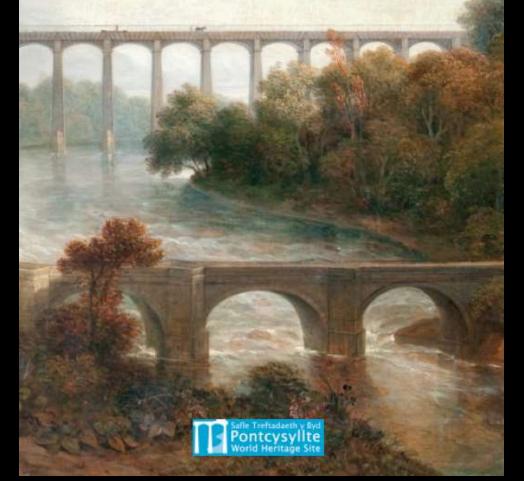


Duisberg 1995



Pontcysyllte Aqueduct and Canal World Heritage Site

Peter Wakelin



European industrial heritage: the international story. awareness.



New destinations for family outings and educational visits have appeared over the past half-century. Princely palaces with their accumulations of old masters and fine furniture, elegant parks, and waterfalls cascading from mountains have been joined by show mines, steam railways, trip boats on canals, water- and wind-mills that still grind flour, and former textile mills adapted to accommodate concerts or exhibitions. The industrial heritage is no longer a minority interest, but has taken its place with aristocratic mansions and capitvating scenery as

something that many people wish to experience.

Industrial buildings have been conserved and museums of industry established by varied agencies; by groups of former workers, by national and local government bodies of all political shades, by companies respectful of their traditions and, above all, by voluntary groups determined that the histories of their communities should not be lost.

It is ironic that the popularity of industrial heritage has increased as Europe's relative standing in the global pattern of

mining and manufacturing has diminished. Industry has ancient origins but it grew to dominate the economies of most European countries from the eighteenth century. In the early twenty first century we are witnessing the closure of the last deep coal mines in Western Europe. and the colossal machines recently used to extract brown coal have quickly become redundant. Huge plants that seemed eternal, ironworks, oil refineries, car plants, are coming to the ends of their days. Even sites and machines that seemed characteristic of the late twentieth century are become part of the heritage. In Hungary there is a museum of nuclear power generation, while Concorde supersonic airliners are displayed in museums in France and Great Britain. As industrial communities seek different directions they are aware that new growth may derive benefits from roots in the past. The European Route of Industrial Heritage exists to enable Europeans to share their past experiences of mining and manufacturing, and to show how we made things and how we moved them in recent centuries.

The ERIH website offers practical assistance for travellers. It also enables its readers to venture in imagination to the most distant parts of Europe. Those who study the website follow in the footsteps of travellers whose writings open up our understanding of the industrial past. The Swede Reinhold Rücker Angerstein 1718–60), who visited England in 1753–55 provides a fascinating description of a country on the verge of industrial revolution. Arthur Young (1741–1820) the English agriculturalist, observed changes in culture as he passed from Lorraine into Alsace in 1789 (when he

Why industrial heritage?

1,300 sites 45 countries 13 theme routes

Meaning for family and community



Critical stage in human history



Deindustrialisation challenge



Inspirations



Warnings



Aberfan 21-10-2016 - 116 children and 28 adults killed

European Route of Industrial Hermagn

Who is it for?

- Decision-makers
- Wider interested
 audience
- But mostly YOU!



EUROPEAN INDUSTRIAL HERITAGE: THE INTERNATIONAL STORY

> Co-funded by the Creative Exclose Programme of the European Union









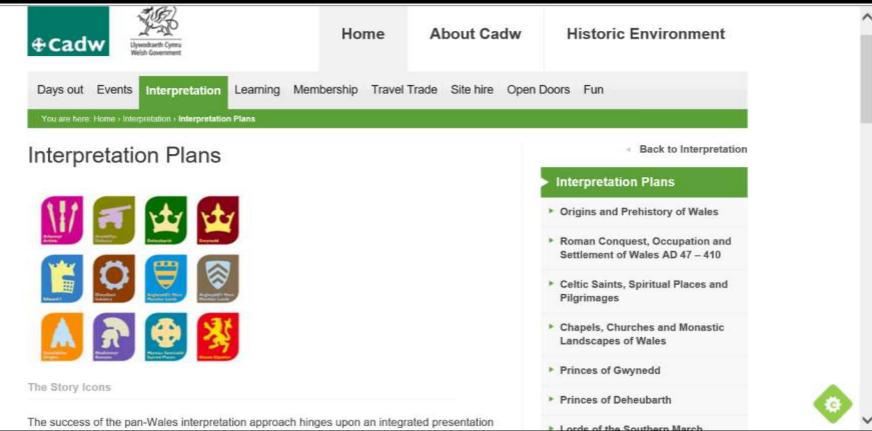
Toolkit for interpretation

Understanding context





Cadw Pan-Wales heritage interpretation project



- 05 Introduction.
- 06 European industrial heritage: the international story. awereness.
- 08 Europe before factories.
- 10 Long journeys in small ships: international trade.
- 12 The treasures of our earth.
- 14 Long-lived manufactures.
- 16 White gold: salt.
- 18 Coal & steam: the Industrial Revolution of the 18th century.
- 20 Changes after 1870.
- 22 Black gold: the rise of coal-mining.
- 24 Coal triumphant.
- 26 Metallic wealth.
- 28 The glow of furnaces and forges: ironworking.
- 30 Textiles: the processes.
- 32 There's magic in the web of it: silk.
- 34 Fabrics in variety.
- 40 Workshops of the world: engineering.
- 42 Ships for the world's trade.
- 44 Oil and motor vehicles.
- 46 From the depths of dark forests.
- 48 Our food & drink.
- 50 Luxury and utility: ceramics and glass.
- 52 Safe in harbour.
- 54 Inland navigation.
- 56 Progress comes on iron rails.
- 58 High roads.
- 60 Flying machines.
- 62 Living in cities.
- 64 Blue gold: water making cities habitable.
- 66 Industrial heritage.
- 68 Our place in history.
- 70 Reflections.



Characterising industrialization

- Organic to mineral materials
- Continuous technological change
- New scale of organisation and capital
- Continuous growth in output
- Greater regional specialisation and trade
- Proletarianization
- Population growth
- Urbanization
- Growing material prosperity



Organic to mineral materials

Petite Rosselle mine, France



Continuous technical change

German Technical Museum, Berlin



New scale of organisation and capital

Bochum, Hall of the Century



Growing material prosperity

Poli Distillery, Schiavon, Italy

Understanding context

Blue gold: water - making cities habitable.



Water is essential to life, but it can also be a threat. It can be helpful to Man in powering water wheels of all shapes. alzes and configurations; it can be medisinally beneficial, as at Spa in Belgium, Manaeshi Lazna (Manuebod) in the Crech Republic or Bath in England, it can be lifted from springs or rivers into reservoirs and led by appelducts or pipekness to provide for the needs of great. cities, or to fill navigable canals. It can elso be man's energy with its potential to fixed lewlands or carry diseases. The significance of pure water is symbolised.

some of which are preserved in open air museums The creation of effective water supply systems was pee of the great water to the city of Nimes in France. and the 38-arch aduaduct at Seportal in Spain, both of the first century AD

by elaborate well head installations.

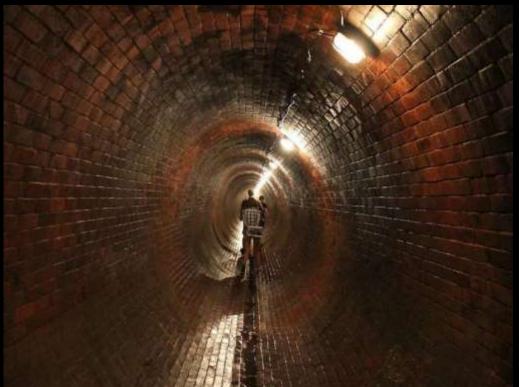
achievements of the engineers of the Ruman Empire, and the Pont du Gant. part of a 50 km system that supplied are monuments to a civilisation whose engineering achievements were not. matched for many centuries. The water



towers near the Rotes for red gate! in Augsburg (D), three of which in their present form date from 1599, 1672 and 1746. Nine more were added subsequently, and by \$850 Augsturg's water supply systems (eached most houses in the city. The New River a contour canal that took water 38 km from springs near Hertford into London built by Sir Hugh Myddleton in 3613. is less spectroular but evidence of the importance of supplying water to great. cibes, in some cibes there were net works of wooden pipes that took water to the homes of the wealthy, and made it available to the populace at large from conduits, like that at Carlax, the principal crossroads in Oxford, which now stands in parkland at nearly Nursham Courierses. The outstanding within supply system constructed in the eighteenth century asso the 55 km aqueduct of 1720, with its 109 store arctios, that took water into Lisbon, Portugal. Its history is explained in a museum in the Barbadinbos pumping station of 1880.

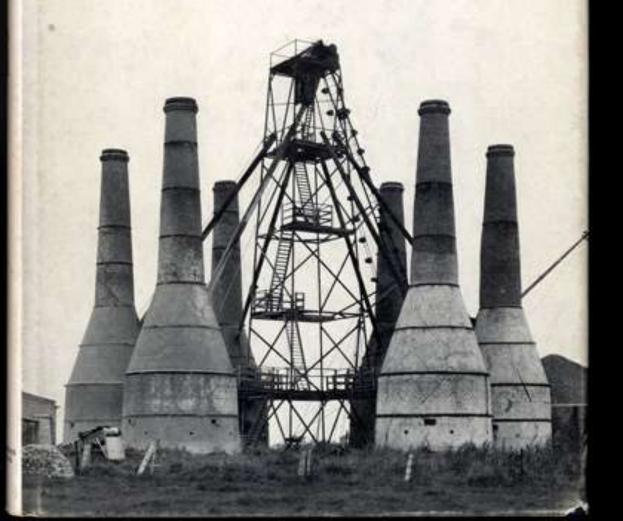
A steam engine was used to pump water for drinking at Chelsea. London, in 1720, and through the mineteenth century and into the twentieth century steam comping stations what tuils in most towns and cities in Europe. Notable conserved examples include the London Museum of Water & Steam at Key, is a pumping station of 1838. which displays a steam engine with a 90 Inch (2.29 m) diameter sylinder, which can still be steamed, and another with a 300 inch (2.54 mi pylinder. The numping station of 1884 at Papplewick new Nottingham is work techurally the most spectacular of British water

- Comparative stories
- International links in technology, people, materials and markets



Bernhard und Hilla Becher Anonyme Skulpturen

Eine Typologie technischer Bauten





William Havell, Parys Mountain copper mine, Wales, c1803

What remains is a rich industrial and cultural legacy, a network of sites across Europe that conserve and interpret the continent's industrial past. ERIH brings them together and brings to life the industrial past so that it can animate our future.