

# INDUSTRIAL ARCHAEOLOGY NEWS

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## Further East than Istanbul

Mark Watson

*As the Iron Curtain has parted, the industrial archaeological riches of eastern Europe have begun to be revealed. Mark Watson was one of several British conference delegates last year to discover the industrial remains of the most easterly of all regions within Europe, the Urals, with a longitude twice as far from London as is Istanbul. This article gives some of his impressions.*

A convoy of three buses preceded by three police cars and pursued by an ambulance and TV crew is winding towards a chasm, formerly a mountain, left by a giant opencast mine. Traffic in town centres is stopped, and in country roads is forced into ditches. Is the motorcade carrying visiting potentates, or the President himself? No. All normal life in the Urals has come to a standstill for the TICCIH intermediate conference: *Conservation of the Industrial Heritage - World Experience and Russian Problems*.

In an area noted for armaments factories and nuclear plants, the only adequate maps are made by the US Air Force, and western visitors were forbidden until 1991. As if making up for lost time, Russian hospitality knew no bounds.

A typical day devoted to visits saw at the entrance to every settlement a reception party of traditionally-costumed middle-aged ladies at the roadside to sing, dance and present large round cakes and salt. Next stop: the palace of culture for folk dancing, vodka and speeches. Then to one of two excellent museums housed in churches shorn of their onion domes. It could take up to three hours to obtain the object of the visit: the Neviansk iron works, continually occupied since 1701. A leaning bell tower of 1725 has cast iron lintels and wrought iron roof trusses. No time for the old blast furnace or to investigate any of the hissing and clanking from adjacent buildings, because we're off to a lake-side retreat for zakuski, toasts and vodka. On to Ekaterinburg and the enormous Uralmash plant (1933, the largest machine shops in Europe) which, following speeches and zakuski in the outstanding works museum, was visited at dusk. Far behind schedule and in total darkness we reach the Verkh-Isetsky metallurgical plant, too

late to visit anything other than the works museum, which illustrates its typical early eighteenth-century origins combining blast furnace and finery.

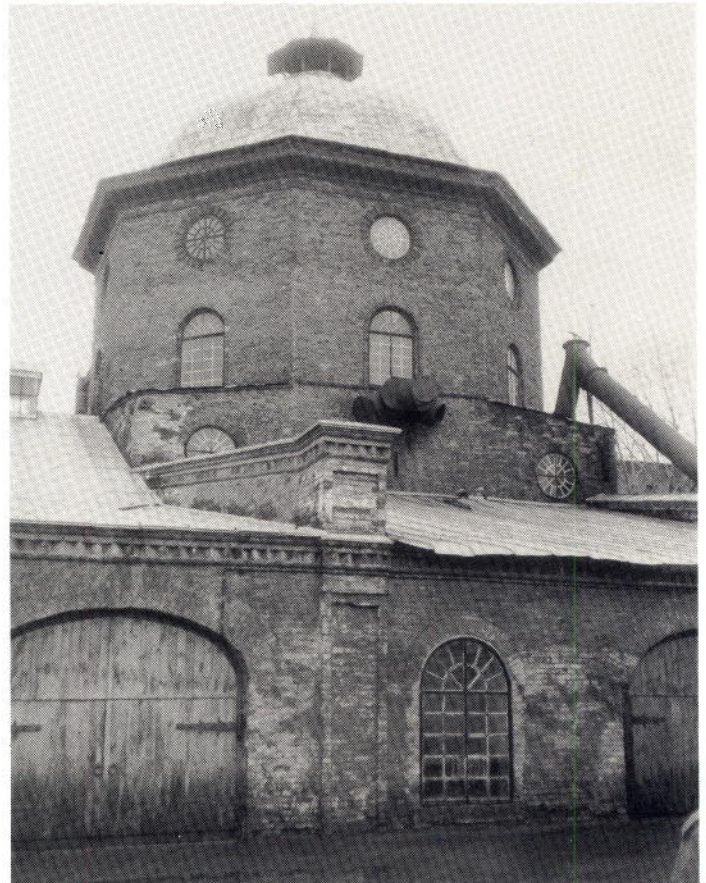
The lecture and round table programme was equally ambitious. Thirty-eight delegates managed to speak, at ever increasing speeds as their allotted times dwindled throughout the day. Another 23, mainly Russians or former Soviet citizens, were edged out altogether and sought instead to corner western delegates over a vodka or a Merrymate.

*Acta non verba*, motto of the Demidov family, became the watchword of the conference, but it was clear that a variety of agendas were being pursued.

Economic historians at the Academy of Sciences wish to remind the wider world of the importance of the Urals as the chief source of eighteenth-century metals. The historians are only now allowed to rediscover the importance of capitalist entrepreneurs, such as Akinfy Demidov, in that era. They are therefore behind proposals to restore Demidov's statue in Nizhny Tagil and the family's house, from fragments, at Neviansk. They are also now released from communist dogma in being able to research foreign investment and technological transfer prior to the Revolution. In this they look for assistance from research-

ers in western archives.

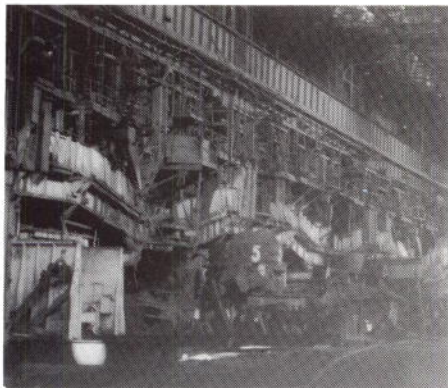
Museum curators are looking for practical and financial help from the West. Yet industrial museums have a long history which rebounds to their credit. The museum at Nizhny Tagil was founded as an adjunct to the works in 1842 and has an important collection of archives, technological equipment, models, geological specimens and art that would shame many a British museum. Each large factory has its own museum to instil corporate identity. They also



*Sevversky Metalurgical Works, founded 1735. Exterior view of the brick-clad furnaces added in 1860 and 1887. Two cranes and a compound vertical blowing engine of 1898 survive inside. Preserved as a museum since 1986.*

Photo: Mark Watson

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Open hearth furnaces await demolition at the V I Lenin Integrated Iron and Steel Works at Nizhny Tagil

Photo: Mark Watson

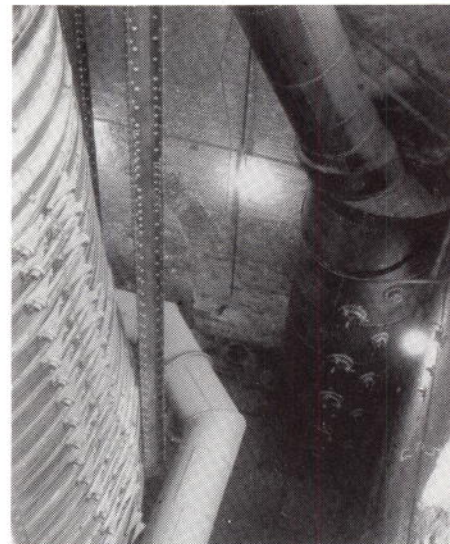
possess 'Lenin rooms' with portraits of Heroes of Socialist Labour or of the Great Patriotic War. Accountants are beginning to take a cold hard look at such things: the Uralmash museum is threatened with closure. Eighty per cent of the workforce, once 100,000, have been laid off at this single heavy machine works.

Technology in the Urals fell behind in the nineteenth century, but it was only in the late 1980s that many sites stopped production. Astonishingly ambitious plans are being laid for a vast inter-linked industrial museum. Nizhny Tagil ironworks, founded in 1725, with a large number of nineteenth-century buildings and two 1930 blast furnaces, became in 1987 the State Museum-Reserve of Mining and Metallurgical Industry of the Mid Urals. The protected historical zone

encompasses 26 'monuments of industrial culture'. Branches already include two mines and four other works, such as Kushvinsky, established in 1739, with a single blast furnace of 1894 within a Gothic steel framework.

Western delegates could only gawp at what was being attempted, and frankly admit that we too have problems. World Heritage Site listing is being sought from Unesco. In terms of the number and scale of the eighteenth-century sites, and the continuity of operation in the 1980s and 1990s, the Urals metal works are unique. The information they contain about water-powered charcoal-fuelled copper and iron works is unparalleled. Metals were crucial to the founding of all the major settlements in the Urals. Ekaterinburg (in the Soviet period called Sverdlovsk, and home town of Boris Yeltsin), grew to a population of over a million. At its grid-plan heart is the dam of 1723 erected to power an iron works ringed by fortifications. An appreciation of eighteenth-century technological developments is fundamental to the history of the Urals.

The future of these sites is by no means secure: the oldest Bessemer plant and the last wooden dam were destroyed in the early 1990s. Even more recent items of technology such as the open hearth furnaces and steam-powered rolling mill still working in the V I Lenin Integrated Iron and Steel Works at Nizhny Tagil (founded 1940), are no longer to be seen in western Europe. The open hearth furnaces are programmed to be replaced by oxygen convert-



Interior of the Seversky brick-clad blast furnace, and such is their pollution that it is hard to regret their passing. However the Siemens-Martin open hearth and the Bessemer converter were together for 80 years the main means of producing steel in Western Europe. No example of either has been preserved in the UK. We shall have to visit Eastern Europe or Asia if we wish to study the real thing.

Mark Watson will be happy to forward any correspondence from researchers into investment and technological transfer in the Urals. He can be contacted at Historic Scotland, 20 Brandon Street, Edinburgh EH3 5RA



Colliery recording in Wales, October 1992: an underside view of hydraulically operated doors of the rapid rail loading bunkers at Taff Merthyr Colliery, Mid Glamorgan, which closed last year and is under demolition. There are three glass-lined bunkers, with a combined capacity of 2,000 tonnes of coal, and each 28-wagon train was loaded and weighed while on the move. Aberthaw Power Station near Barry took the entire output from the colliery at the rate of one 900 tonne train each day. This photograph is part of the survey of Taff Merthyr Colliery carried out by the Royal Commission on the Ancient and Historical Monuments of Wales, is in preparation for the Commission's forthcoming publications on collieries. The first of these is due for distribution through Alan Sutton Publishing later this year, Colliery Architecture and Engineering in Wales.

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