

Shock of the new

David Edgerton

American Technological Sublime. By David E. Nye. MIT Press: 1994. \$35, £31.50.

FROM the late nineteenth century to today, the United States has been the most efficient large industrial economy in the world. At the peak of its relative power Americans were some 30 years ahead of Europeans in the ownership of consumer durables. It has been, without question, the great technological power of the twentieth century. Industrially and technologically it has stood for modernity, even though it subverts our common cultural and political picture of modernity. Its religious observance is astonishingly high; it has never had a mass socialist party; its progressivist ideologies have differed markedly from European models. Many have found in Americans' love affair with modern technology a distinct 'American ideology'.

Some have pointed this out in order to shame their own country into a greater technological enthusiasm; others have sought to criticize Americans' infatuation with things. Critics have long bemoaned the grip that 'technological determinism' has had on the US imagination. They argue this simply hid from view the actions of powerful human forces such as corporations. But although many have criticized Americans' over-emphasis on the independent role of technology in shaping society and history, few have examined their actual attitudes to technology and how they have changed over time.

In his fine book David Nye explores one fragment of that story: America's celebration of large-scale and powerful technologies. He looks in particular at things he labels 'sublime': those that inspired awe, terror and astonishment even on repeated viewings. Nye makes very clear that Americans did experience some technologies in this way, indeed in ways similar to some of the great natural wonders such as the Grand Canyon. The canal that linked New York with the Great Lakes, the first railroads, great bridges, skyscrapers, the atomic bomb, space travel, were all surprisingly public spectacles that gripped the American mind. Bridges such as Brooklyn and the Golden Gate attracted huge attention (and indeed continue to do so). After 1945 Americans made long trips to see atomic and hydro-

gen bombs being exploded, and indeed complained that the explosions did not get ever-more spectacular.

Nye shows we understand the same thing in different ways over time, and different people understand things in different ways. The thing in itself did not determine Americans' reaction to it; interpretations of something as fixed as the Grand Canyon have changed,



Topping it all: a worker constructing the Chrysler Building in Manhattan in 1928. For most of this century the island has boasted the world's tallest habitable building.

betokening changes in attitudes as a whole. A seventeenth-century European might have seen it as nature at its most barbarous, whereas a nineteenth-century American would have seen in its awesome sublimity the work of God. Today, Nye tells us, the most common questions asked of the park wardens assume that the canyon was made by human beings.

The Grand Canyon, even if thought of as the result of modern technology, continues to attract visitors, but there have been great changes in what counts as technologically sublime. Novelty became a key feature. Only the new came to be regarded as sublime: the eyes of a whole

city would turn skywards when the first aeroplanes appeared, but only the equivalent of train-spotters would do the same today. Bridges, skyscrapers and atomic explosions had to be bigger than the last to be worth seeing; America came to be in love with technological change rather than with technology.

To judge from international exhibitions, the kind of thing presented and what was deemed sublime also changed. In the nineteenth century the products of industry of nations were the attraction; by the early twentieth century it was the process of production (notably the assembly line) that filled people with awe. Indeed, Ford and many other companies welcomed visitors, in very large numbers, to their plants. At the New York World's Fair (1939-40) current products and processes were rather *passé*: it was the future that was yet to be created that drew the crowds and filled the stands put up by massive US corporations. The technological sublime was the as yet unrealized creation of the corporate research laboratory. It is not accidental, therefore, that British television's longest running programme on technology should be called "Tomorrow's World".

Nye points to another change: in the nineteenth and early twentieth centuries, the celebration of big technologies was a celebration of the republic itself; it was a civic act. By the 1930s it had become corporate propaganda.

Nye brings us up to date with a view of Las Vegas, an indiscriminate rolling together of the natural and technological sublimities of the past. The new Las Vegas incorporates not only the electrical sublime of the early twentieth century, but also ersatz volcanoes, waterfalls and skyscrapers. It is not nature's wonders, or man's production, or indeed the future, that is celebrated in Las Vegas but a dream world of

consumption.

Nye's book focuses on what he recognizes is the untypical case of the United States, and on only one aspect of Americans' attitudes to technology. But the history of popular thinking about technology, as Nye's book shows, can help us to understand the limits of our own understanding of the relationship between technology and society, and indeed how those limits have arisen. □

David Edgerton is at the Centre for the History of Science, Technology and Medicine, Imperial College, Sherfield Building, London SW7 2AZ, UK.