

EXHIBITION

Dreamscapes

Henry Nicholls

Sleep can be uncertain and dreams so surprising. This very unpredictability makes *Sleeping and Dreaming* perfect curatorial territory for the Wellcome Collection, London's brave venue where science, art and culture converge.

This exhibition lets you ponder an early electroencephalogram machine, peer at a nightmarish vision by Francisco de Goya, survey alarm clocks made in four different centuries, watch a cataplectic fit unfold, find the Salvador Dali and Luis Buñuel film *Un Chien Andalou* on continuous loop and wish you owned a Hizamakura clip-on pillow, to make your desk more comfortable for a nap.

From a central corridor the visitor steps off into the intimacy of dark, spotlight antechambers, each addressing the show's central themes. As a narcoleptic visited by inspiring hallucinations while slipping into sleep, I particularly enjoyed the recess exploring the creativity that may flow from dreams. Here one can listen to 'Yesterday', which Paul McCartney apparently woke up humming, view a cast of *Cyclopoma spinosum* (a fossil fish that Swiss-born zoologist Louis Agassiz claimed to have reconstructed in his sleep) and admire Otto Loewi's Nobel certificate, awarded in 1936 for his dream-inspired discovery of neurotransmitters.

Aristotle and Freud make understated



Restless reveries: a long-exposure photograph captures a subject's movements during sleep.

appearances, allowing room for other scientific responses to sleeping and dreaming. Most of these are anecdotal. The rich artistic and cultural interpretations, by contrast, have greater impact.

There is a lively presence of contemporary art, with the central space occupied by two intriguing pieces. At one end, German photographer Nils Klinger captures sleep in a single still by leaving the shutter open on his slumbering subject for the time it takes a candle, the sole light source, to burn down ('Die Schlafenden', pictured). At the other, London-based sculptor Laura Ford has installed two kneeling child-like figures with donkeys' heads "to recall the fantastical slumbers of *A Midsummer Night's Dream*". The combination makes a disturbing piece.

Sleeping and Dreaming is a result of a collaboration between the Wellcome Collection and its German analogue, the Deutsches

Hygiene-Museum in Dresden, from which the exhibition has just transferred. Both are a result of visionary philanthropy — pharmaceutical entrepreneur Sir Henry Wellcome in Britain and industrialist and oral-hygiene pioneer Karl August Lingner in Germany.

The Wellcome Collection offers a place to "consider what it means to be human" and the Deutsches Hygiene-Museum aspires to reveal mankind's "multilayered cultural, physical, and psychological nature". I await their next joint venture, *War and Medicine*, with interest. ■

Henry Nicholls is a London-based science writer and author of *Lonesome George: The Life and Loves of the World's Most Famous Tortoise*.

Sleeping and Dreaming runs at the Wellcome Collection, London until 9 March. See www.wellcomecollection.org.

Rex appeal

Victorian Popularizers of Science: Designing Nature for New Audiences
by Bernard Lightman

University of Chicago Press: 2007.
528 pp. \$45

The Earth on Show: Fossils and the Poetics of Popular Science, 1802-1856

by Ralph O'Connor

University of Chicago Press: 2008.
448 pp. \$45

Frank A. J. L. James

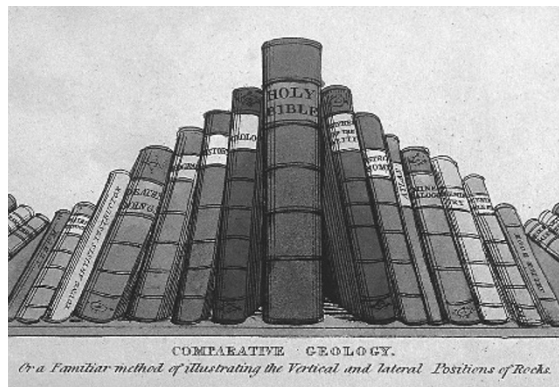
The popularization of science has become a growth area for historical study. It is a natural continuation of the historian's quest to understand the social and cultural context and impact of science, and a consequence of scientists' admonitions over the past 20 years that the public should be better informed.

Implied is that the efforts of earlier generations of scientists fell short of making their work accessible to the public. But Lightman's and O'Connor's books paint a very different picture, at least with respect to the nineteenth century. Their insights come soon after Aileen Fyfe's *Sci-*

ence and Salvation (2004) and David Knight's *Public Understanding of Science* (2006).

At the start of the nineteenth century, science was not an independent profession. Practitioners were often closely linked to medicine and the Church, at least in Britain, the country studied in *Victorian Popularizers of Science* and *The Earth on Show*. In France, there were more opportunities to pursue a scientific career. By 1900, science was widely practised independently in Europe and the United States, and the term 'scientist', coined by William Whewell in 1833, settled into the vocabulary. Science as a body of knowledge had become largely separated from theology.

This trajectory is tracked by Canadian historian of science Bernard Lightman in his survey of popular science in Victorian Britain. He begins with the Anglican ascendancy, in which most scientific work was undertaken by members of the Church of England, frequently those in holy orders. He moves on through showmen such as John Pepper (of Pepper's ghost fame), to biologist Thomas Huxley and evolution, and the astronomer Robert Stawell Ball.



Lightman maps the careers of some 30 popularizers, many sparsely covered before, who derived their income from writing science books, including Rosina Zornlin and John George Wood. Strikingly, many of these were professional writers or journalists and not scientific practitioners. Lightman reveals that the print runs of these now obscure figures were roughly the same as those for books published by well known scientific practitioners such as Ball, Huxley and natural philosopher John Tyndall. This suggests that the contemporary reading public could not easily distinguish between material written by a practising