

Schweber's writing here; he speaks of lions in winter.

And it is here that this book is most powerful, for we see Oppenheimer and Einstein in contexts and guises that are usually omitted from the more heroic (or antiheroic) forms of biography to which they have most often been relegated. The chapter on Oppenheimer's role as an Overseer of Harvard College and his role on the visiting committee for the Department of Philosophy, coupled with his William James lectures there, excavates the man's quest for a philosophy that would bring the revolutions in recent physics to the heart of contemporary ethics—an ambition rarely addressed by his earlier biographers. Likewise, we see a petulant and somewhat defensive Einstein clashing with the trustees of Brandeis University at the moment of its foundation, revealing the sage of Mercer Street as an unexpectedly seasoned academic politician. The chapter on Einstein's long involvement with and thoughts about nuclear weapons, from the "Einstein letter" that is (erroneously) supposed to have launched the Manhattan Project to his views of atomic arms control and its relation to world government (as manifested in the Russell-Einstein manifesto), is the single best treatment of this important subject ever written and should be required reading for all historians of modern science. Einstein's late style transforms him into an engaged proponent of communities, both academic and not, and Oppenheimer's transfigures him from an administrator into a philosopher. There are depths here that will continually surprise even those (like myself) who thought they knew everything there was to know about these two iconic figures.

"Late style," however, is my framework, not Schweber's. His target in these essays lies elsewhere, in the fraught word that graces his subtitle. He is after the meaning of "genius"—or, as we are repeatedly alerted in the text, to the inadequacy of this notion. There are no geniuses for Schweber: "One of my aims in the book was to banish the term *genius* when referring to these two extraordinary individuals by emphasizing how they created their science and made use of the cognitive and intellectual resources of their community; how they interacted with their colleagues and friends, and with the communities they were part of; how they molded themselves after they had become 'great men'; how they lived with their 'greatness'; and how they saw each other's greatness and interacted with one another" (pp. ix–x). There are two separate arguments here: historiographical (the attribution of genius is manipulated *post*

hoc and thus is not explanatory) and antireductive (genius is built on the resources of the community).

Yet throughout this book Schweber adds a third argument: counterfactual. At several points (e.g., pp. xi, 23, 152) he discusses how other individuals "would have" made Einstein's discoveries (with the possible exception of general relativity) within a few years, and so they would have received the same credit now given to genius, while at the same time arguing that Oppenheimer likely "would have" played a greater role in the development of quantum mechanics had he not contracted trench dysentery on a trip to Europe and thus entered Harvard a year late or had his student, Sidney Dancoff, not messed up a calculation in the late 1930s that would have enabled Oppenheimer to develop renormalization and thus jump-start quantum electrodynamics a decade before Feynman *et alia* did. For a book that is in general so careful about not ascribing mystical qualities like "genius" to figures who are perpetually tagged with such attributes, this seems an odd occult departure. It is the only instance of speculation in an otherwise exemplary set of biographical studies that have situated those two triumvirs, Oppenheimer and Einstein, back on a human scale, in a human history. The great achievement of *Einstein and Oppenheimer* is that Schweber has done so through the counterintuitive move of stressing the lives and thoughts of these figures in their late style—the period following their salient historical achievements, when most scholars' attention has already flagged. The most revealing episodes, one finds, often come at the end.

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Marianne Sommer. *Bones and Ochre: The Curious Afterlife of the Red Lady of Paviland.* xiv + 397 pp., figs., tables, apps., bibl., index. Cambridge, Mass./London: Harvard University Press, 2007. \$39.95 (cloth).

In the latter half of the twentieth century the concept of the biography lost much of its prestige among scholars. By the 1980s a revised form, sometimes called the "New Biography," had appeared. This improved version used the life of an individual as a vehicle to examine broader issues and concerns. By the beginning of the twenty-first century biographies of non-human subjects, technographies, had appeared. In her excellent new book, *Bones and Ochre: The Curious Afterlife of the Red Lady of Pavi-*

land, Marianne Sommer has done something similar, but with a fossil. Sommer calls her book a “biography of a scientific object”; I kept thinking, Fossilography?

Sommer uses the “afterlife” of the famous Red Lady to examine the history of paleoanthropology from its origins in the nineteenth century as an amateur pastime through its transformation into a professional science. She does not attempt an explanation of who the Red Lady was or where she came from; instead, she studies the reactions and conclusions of naturalists and scientists as a mirror held up to them, not the Red Lady. The choice of this stony curiosity is a good one, as it is thought to be the first human fossil ever discovered and has been studied and restudied from the moment it was unearthed up to the present. Sommer examines the changing attitudes and techniques of the field of human origins research. This shows how ideas about nationalism, empire, gender relations, and the social growth of science, as well as other extrascientific concerns, became part of an analysis that was supposed to be based on empirical notions alone—and how changing times meant changing interpretations. In this reading, the Red Lady is like a movie star who has had many lovers over the course of her life and sought to manage her career so that it supported them instead of her. Here Sommer gives us the story of a great diva’s entourage.

The fossil bones that came to be known as the Red Lady of Paviland were found in a cave in Wales in 1823 by the Reverend William Buckland, just as fossils were beginning to be of serious interest in the West. It was curiously stained with red ochre and had a number of small artifacts in attendance. Buckland took all this into his mind’s eye and built a picture of a sexy witch dancing seductively around a fire at night, the seashell jewelry swinging around her neck clanking musically, her naked body covered in red paint as she performed obscure pagan rituals. He associated the fossil with a nearby Roman site. He never thought that the mammoth bones found with the Red Lady might have been contemporaneous or that she represented an ancient human form thousands, if not tens of thousands, of years old.

This was only the first in a line of interpretations that changed as the science of paleoanthropology changed. The musings of Buckland, arising within a theological—what we would today call a creationist—framework, were supplanted with the growing influence of Darwinian evolution theory. W. J. Sollas, a

student of T. H. Huxley, thought the Red Lady a heroic Cro-Magnon. Sollas did not care for Buckland, so he looked for a way around the sexy witch scenario. French investigators like Marcellin Boule and Henri Breuil examined the bones and disagreed with Sollas as to the nature of the artifacts found with the skeleton. Nationalistic rivalries between the French and British now entered the game. It goes on like this until the late twentieth and early twenty-first centuries, when yet another round of tests were made (eventually showing the “Lady” to be male).

What Sommer does in her readable, well-researched, highly recommended book is give a fascinating case history of how the era in which a fossil is discovered can affect how it is interpreted. All the investigators here did their work with great seriousness and tried to be as accurate as they possibly could. Their results once again show how science can never stand still. It must constantly reorganize and reinterpret the world around us with new techniques and knowledge. Fossils do not speak on their own. Sommer rightly points out that “although the bones of the Red Lady possess a physical reality, they too only become alive in the hands, eyes, and minds of the manipulators and contemplators” of fossils (p. 6). It is now taken as a given that the study of human origins, even when it is done to as exacting a scale as possible, often includes issues of culture, race, gender, and the proclivities and worldviews of those who study it. The Red Lady, like all fossils, whispers her warning to us—“Be careful”—and asks us rhetorically, “Whose story are you telling, yours or mine?”

BRIAN REGAL

Annette Vogt. *Vom Hintereingang zum Hauptportal? Lise Meitner und ihre Kolleginnen an der Berliner Universität und in der Kaiser-Wilhelm-Gesellschaft.* 553 pp., figs., tables, bibl., index. Stuttgart: Franz Steiner Verlag, 2007. €84 (cloth).

Lise Meitner is perhaps the best known among the historical figures appearing in this formidably researched volume. In fact, however, the real strength of *Vom Hintereingang zum Hauptportal?* is its wide-ranging investigation of the careers of Meitner’s colleagues mentioned in the subtitle: female scholars at two major German academic institutions in the first half of the twentieth century. Annette Vogt considers women who received doctorates (*Promotionen*) or held teaching positions at the University of Berlin or who