The articles by Sobchack and Serlin were of particular interest to this reader. Sobchack's, "A Leg to Stand On" sets a strong tone for this volume. As the wearer of a prosthetic left leg, her essay foregrounds the embodiment experience of bodies with prostheses. She critiques and redresses the metaphorical displacement of the prosthetic by focusing on the lived-body experience (18). Serlin begins his "Disability, Masculinity, and the Prosthetics of War," with the story of the Amputettes—six veteran amputees who performed in drag for recuperating soldiers at U.S. military hospitals in the mid-1940s. He explores conceptions of what constituted able-bodiedness and normative masculinity during this period (159). Bringing his study forward to 2004, Serlin links his argument that able-bodied masculinity is culturally produced during wartime first, to the positive newspaper coverage of Iraq war veterans with their prosthetic limbs and second, to the well-publicized incidents of physical torture and sexual humiliation of Iraqi prisoners by U.S. military personnel at Abu Ghraib prison.

Part two of the volume, entitled "Assembling: Internalization. Externalization," includes essays by gender studies scholar Elizabeth Grosz, critical theorist Joanne Morra and visual culture scholars Lev Manovich, David Wills, Raiford Guines and Omayra Zaragoza Cruz. As the section title suggests, these essays address the representation and reception of prostheses and bodies. In her essay entitled "Naked," Grosz examines sexual spectacle and sexual viewing and how the transformation of the art of depiction, to functional art, to experimental art contributed to the transformation of the body (191). Manovich, drawing from Marshall McLuhan and media history in general, examines ways in which the inside body is being externalized, or "augmenting the body by extending it outside," through new visual and imaging technologies (216). The other articles in this section explore related themes.

The Prosthetic Impulse is a collection that any scholar exploring themes of technology and the body could find useful. If for no other reason, this compilation will force scholars from a variety of disciplines (this reviewer included) to think more broadly about the body—historically, presently and in the future—and its mediation with both the biological and technological imperatives in modern Western culture.

## LIANNE MCTAVISH

Review of

Daston, Lorraine, ed. 2004. Things That Talk: Object Lessons from Art and Science. New York: Zone Books (MIT Press).

Pp. 447. Hardcover \$34.50, ISBN 1-890951-43-9.

This collection of nine essays explores the relationship between objects and speech, noting how things can both encourage and shape discussion. The authors—art historians and historians of science—met three times at the Max Planck Institute for the History of Science in Berlin to discuss their work. Lorraine Daston, director of the Institute and editor of the collection, refers to these sessions as periods of "intensive collaboration" (7). Yet the resulting studies are remarkably different, covering diverse European and North American objects from a range of historical periods. Some topics fit more or less neatly into the discipline of art history: Joseph Leo Koerner analyzes a 16th-century drawing by the artist Hieronymus Bosch; Antoine Picon considers the shifting meaning of the free-standing column in

18th-century French architecture; Caroline A. Jones studies the mutual exchange of information between paintings made by American artist Jackson Pollock in the 1940s and art critic Clement Greenberg. Other essays feature objects that are less conventional: M. Norton Wise and Elaine M. Wise chart the changing understandings of Peacock Island in late 18th- and early 19th-century Prussia; Simon Schaffer investigates how soap bubbles inspired 19th-century British scientists; Anke te Heesen examines collections of newspaper clippings from the 1920s.

According to Daston, these discrete case studies are informed by a common goal; they consider how matter both limits and enables meaning, recognizing that "the language of things derives from certain

properties of the things themselves, which suit the cultural purposes for which they are enlisted" (15). This effort to appreciate the materiality of objects has previously been undertaken, most famously by art historian Michael Ann Holly (1996). Holly argues that art works actively prefigure the histories that can be written about them. The essays in Daston's collection similarly strive to avoid approaching objects as blank screens on which social meanings and values are projected. While some authors achieve this goal, others produce straightforward discourse analyses that explain how an object was shaped within language during a specific historical period.

Joel Snyder's assessment of early photographs is among the more successful accounts of the reciprocal exchange between object and interpreter. Studying the shifting legal status of 19th-century daguerreotypes, the art historian argues that these images were initially considered mechanical in nature. That is, they were understood as manual productions, though made by the sun rather than by an artist. Daguerreotypes were thus inadmissible as evidence because they repeated what the sun said as hearsay, given that the original "speaker" (the sun) was impossible to cross-examine. Yet by the late 1870s, arguments were made in favour of photographs as a form of direct evidence. The images were still deemed mechanical in nature, but some lawyers claimed that memory was itself photographic because all witnesses essentially relied on mental pictures for their testimony. Clearly, photography was changing the portrayal of human vision and perception. As a result, photographic images were increasingly accepted as eyewitness testimony, able to speak for themselves.

In another notable essay, Daston, an historian of science, examines the Glass Flowers made by Leopold and Rudolph Blaschka for the Harvard Museum of Natural History between 1886 and 1936. These delicate glass models of plants and flowers were meant to display post-Darwinian methods of botanical classification, bringing nature inside for the benefit of both students and amateurs. Now that the Glass Flowers have moved from the category of specimen to that of artistic wonder, they continue to amaze. Daston is primarily concerned with how and why these objects have consistently attracted admirers—admirers who seem compelled to produce verbal descriptions and evaluations of

the Glass Flowers. She argues that the appeal of the Glass Flowers is partly based on their chimerical nature; they are neither purely art nor purely science. At the same time, the sheer materiality of the Glass Flowers is fascinating. Unlike wax, which is more amenable to mimicking natural forms, glass is impractical, fragile and impressively difficult to work with. The Blaschka's method was unusual and daring, making their Glass Flowers impossible to copy and lending them an air of both authenticity and preciousness that ensured the irresistibility of the Glass Flowers.

Another historian of science, Peter Galison, turns his attention to Rorschach blots. According to him, since 1921 these diagnostic objects have talked back to the subject. Though the cards seem random, they are carefully constructed and standardized. As a technology of the self, the Rorschach cards define interior life by means of a "routinized procedure followed in thousands of ordinary tests" (274). Galison studies how a specific understanding of self has been produced in relation to the cards, one which presupposes a different ontology than that of the 19th century. Unlike the earlier notion of an "aggregate self" composed of various powers, Rorschach's test produced an "apperceptive self" that refused separation between the faculties. This self was unified, and its various components, such as reason and cognition, were linked dynamically. Galison claims that Rorschach's test cards were only part of the emergence of this changing sense of self, which was also encouraged by new architectural spaces and understandings of the family, among other things.

These brief summaries reveal the sheer diversity of the essays in the collection. It is difficult to extract an overall theoretical approach, method or message from the book, however, despite the editor's cogent introduction. I suspect that readers will be attracted to particular topics, finding some more useful than others. In the end, *Things That Talk: Object Lessons from Art and Science* offers intriguing case studies rather than an historiographical reflection on, or revision of, material culture studies.

## References

Holly, Michael Ann. 1996. Past Looking: Historical Imagination and the Rhetoric of the Image. Ithaca: Cornell University Press