Like the science practiced by Correia da Serra this book is useful and necessary. It is a decisive contribution, which promotes and dignifies the history of science in Portugal.

Lorraine Daston, ed., *Things that Talk. Object Lessons from Art and Science* (New York: Zone Books, 2004). 447 pp.

By Palmira Costa[*]

Things that Talk: Object Lessons from Art and Science is the result of a collaboration between a group of historians of art and historians of science that met at the Max Planck Institute for the History of Science over the course of the academic year 2001-2002. The common core of the project was to take materiality as a serious challenge and as an excellent opportunity to reflect on the various and interlocked meanings of materiality and culture. If materiality has always been of crucial importance for historians of art, only recently has it received due attention from historians of science. In part, this volume belongs to this recent historiographic trend in the history of science. It can also be associated with the burgeoning interest in

[*] (CHFCT/DCSA, Faculty of Sciences and Technology - New University of Lisbon).

intersections between the arts and the sciences. Some of the essays presented in the volume, share also methodological affinities with recent studies of "science in context" which emphasize the local character and cultural specificity of natural knowledge.

However, *Things that Talk* is unique in many ways. Indeed, it might be said that it is as unique, enigmatic and provocative as the things that are the object of each of its nine essays: Hieronymous Boch´s drawing *The Treeman*, the eighteenth-century freestanding column, Peacock Island in the Prussian river Havel, soap bubbles, early photographs entered as courtroom evidence, the Glass Flowers at Harvard, Rorschach blots, newspaper clippings, and paintings by Jackson Pollock as seen by the critic Clement Greenberg. Why these things and not others? The diversity and arbitrariness of this list is explicitly assumed by the editor in her excellent introduction. Nevertheless, are there things that by their very nature talk more than others? According to the editor and the contributors, these are the things that have a composite and ambiguous nature, that are more resistant to classification and to interpretation, things that through their striking properties embody loquaciousness. Yet, is their talkativeness obvious and easy to decipher? The meticulous, detailed and sometimes dense accounts presented in the book, all written by well established scholars in their fields, testify to the contrary. It is the proposition of the book that certain kinds of things talk for themselves. However, the work itself is also proof that these things need privileged mediators in order to be properly heard by most people who care about what they might "say".

As the subtitle indicates, the volume is a series of object lessons. Do they all succeed in their pedagogical aim? Although all of the essays might be inspiring in one way or another, they do not share the same clarity, elegance, and captivating qualities. Besides, illustrations have an important role in the analysis and argumentative strategies presented in the various essays but except for the nine colour plates, their reduced size and poor quality sometimes makes it difficult to follow the argument.

It is inevitably difficult to do justice to such a diverse collection in a short review so I will focus upon three of the contributions that are not only more interesting to historians of science, but also excel in their instructive and engaging qualities. M. Norton and Elaine M. Wise's "Staging an Empire" presents the changing fortunes of the Peacock Island in the Havel River near Potsdam between 1793 and 1830. This very well documented essay takes us into the multiple layers of meaning that have been built into the island and that range from visions of romantic isolation, imperial fantasy, and industrial and colonial development. Simon Schaffer's "Soap Bubbles in Classical Physics", provides us with a fascinating account of how soap bubbles, commercial commodities associated with hygiene and purity as well as artistic and moral systems of innocence and transience, were also crucial objects in scientific studies and public demonstrations of Classical Physics during the final decades of the nineteenth century. Finally, Lorraine Daston's delightful essay, "The Glass Flowers" focuses on the collection of 847 lifelike models of over 750 species and varieties of plants held at the Harvard Museum of Natural History. It shows us

how things can be made to talk out of love as well as hatred since the virtuosity and accuracy of the glass flowers made them not only objects of admiration on the part of both scientists, patrons, curators and the general public, but also objects of suspicion by some scientists who viewed them as unscientific. It also illustrates how they changed their status from scientific glass models into public wonders.

Overall, *Things that Talk is* a stimulating work that reveals the fluidity and inner structures of meaning associated with materiality. Yet its thematic and methodological variety makes it a somewhat disconcerting and puzzling collection of new "things" that talk.

Isabel Amaral, *A Emergência da Bioquímica em Portugal: As Escolas de Investigaçâo de Marck Athias e de Kurt Jacobsohn* (Porto, Fundaçao Calouste Gulbenkian- Fundaçao para a Ciência e a Tecnologia, 2006). ISBN: 972-31-1149-7.

By José Ramón Bertomeu Sánchez [*]

The book analyses the emergence of biochemistry in Portugal throughout a comparison of the two main research schools headed by Marck Athias (1875-1946) and Kurt Jacobsohn (1904-1991). Research schools became very

[*] Instituto de Historia de la Ciencia y Documentación "López Piñero" (Universitat de València-CSIC).