

Agustí Nieto-Galan, *Los públicos de la ciencia. Expertos y profanos a través de la historia* (Madrid: Fundación Jorge Juan, Marcial Pons Historia, 2011), ISBN-13: 978-84-92820-49-8, 407 pp.

*By Ana Simões**

This excellent book offers a big picture of the popularization of science and technology centred on its changing audiences. Written in Spanish, this book grew out of the author's involvement in a decade long research project, the preparation of a graduate course, cycles of seminars, an international meeting, and finally the belief that history can help in understanding present problems. In this book, the author uses history of science and technology to find solutions to what he identifies as the present malaise in scientific culture, a paradoxical situation having in mind the narrow results of so many instances of communication of science and technology to broad audiences and programmes devoted to the public understanding of science.

Informed by current historiographical debates, the involvement in the theoretical framework of the international research group, Science and Technology in the European Periphery (STEP), which the author mentions *en passant*, Agustí Nieto-Galan offers an ambitious alternative to a profusion of sophisticated specialized case-studies often focussed on the 19th century British, French or Italian contexts. He relies on a variety of examples taken from different periods and contexts, including examples from peripheral contexts (restricted mostly to the Spanish and Catalanian), in order to weave a broad picture in which chapters are organized thematically, each ranging over various centuries, with special focus on the Enlightenment, 19th and 20th centuries. Chapters successively address “Printed science” (starting with the Renaissance), “Spectacular science” (centred on, but not limited to, the 18th century), “Heterodox science”, “Science in the classroom”, and “The science of technology” (revolving around, but not restricted to, the 19th century), and “Media science” (privileging the 20th century).

In all chapters, the complex relationships between amateurs and professionals, orthodox and heterodox science, the different sites in which scientific practices took/take place, the role of particular places from the perspective of their public

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dimension, as well as the frequent tensions between educating and amusing, are selected as the common elements converging into an unified account of popularization of science throughout times and places. Additionally, they open avenues for reflection about epistemologies of laypersons and non-experts, such as amateurs, patients, students, craftsmen, visitors, and consumers, and for the assessment of their contrasting features when compared with those embraced by experts.

The book's organization mirrors its main purpose, which is to suggest how to overcome the general lack of scientific culture among the average individual (deficit model), despite all insistence on public awareness of science programmes and the various popularization of science strategies deployed throughout time. This is done by posing the problem in the introductory chapter "Introduction. The scientific culture's malaise", and enrolling the reader in a fascinating travel through the author's insightful broad history of popularization, in order to define the framework for the theoretical discussion of solutions in the chapters "Democratic science" and "Conclusions".

Centred on the participatory model, the author discusses levels of public participation, and the ways in which non-experts manage to become active players in criticizing, informing and (re)defining scientific agendas. Past historiographical proposals introduced in the 1930s are reconvened by Nieto-Galan to reveal how they already disclosed means to overcome the traditional model of communication, and eventually help surmount the unfortunate deficit of scientific culture characteristic of the population at large. In the same manner in which the horizontal view of communication gives voice to forgotten actors, institutions and places, Nieto-Galan recovers past historiographical voices, with special fondness for those of Ludwik Fleck and Antonio Gramsci, in this way empowering them with the capacity to shed light on recent historiographical debates. In reflexively doing so, the author shares with the reader bits and pieces of his own trajectory as a historian of science, and cleverly reconvenes the past to understand and act on the present. The author thus contributes to reassess the relationship of history of science and Science Studies, a discussion which opposed Sheila Jasanoff (and more recently Peter Dear) to Lorraine Daston (Sheila Jasanoff, "Reconstructing the Past, constructing the Present. Can the History of Science and Science and Technology Studies live happily ever after?", *Social Studies of Science* 30 (2000), 621-31; Lorraine Daston, "Science Studies and the History of Science," *Critical Inquiry* 35 (2009), 798-813; Peter Dear, Sheila Jasanoff,

“Dismantling Boundaries in Science and Technology Studies”, *ISIS* 101 (2010), 759-774), by taking sides with those who aim at rethinking the place and audience of history of science, and simultaneously insist on finding ways to bridge the gap between history of science and Science Studies.

While this book is addressed mainly to a Spanish speaking audience, its fresh approach to a topic at the forefront of debate within and beyond the history of science community makes it unfortunate that the language barrier alienates the English-speaking community from having access to it. A translation of this book should be seriously taken into consideration. Should this translation be made, the awkward use of the author-date system of references, relegated to the notes instead of inserted in the main text, and making it very hard for the attentive reader to profit from both notes and references in a straightforward and friendly way, should be corrected.