

Paola Govoni is a historian of science at the University of Bologna with a long experience in the study of science popularization, education and communication. She is the author of *Un pubblico per la scienza: La divulgazione scientifica nell'Italia in formazione* (Carocci 2002, reprint 2011), a path-breaking study of science popularization in nineteenth-century Italy. She came to Barcelona, in the context of the seminar series “Communicating science: pleasures and pitfalls of historical narrative” to talk about the making of *Che cos'è la storia della scienza* (Carocci 2004) an introduction to history of science which has had already seven reprints. Miquel Carandell interviewed her in Barcelona, at the Institut d'Estudis Catalans where her talk was held.

How did the idea for this book arise? How was the creative process?

Well, the idea was not mine. The publisher of my first book suggested me to write a short introduction to the history of science for undergraduates. It was 2002 and Italian – and European – universities were undergoing the so-called Bologna process. Teachers needed new textbooks for the new short courses. So, after having been an historian of popular science, I accepted the challenge of being a popularizer of my own field, the history of science. Writing that little book was – both – much harder and much more fun than I had thought at the beginning.

What audiences did you expect to reach with your book? Did you reach any unexpected readerships?

The main goal was to target undergraduates, but since the beginning my ambition was to reach historians of science too, and possibly, of course, the so so-called general reader. Who really read the book is difficult to say. I know that I reached students because I could check that several university teachers are using the book in their courses. So, at least in part, the goal of reaching colleagues was fulfilled too. I think that science journalists also liked the book, and that was an unexpected readership. I think that happened because the book starts in the present; several science journalists wrote encouraging reviews. If there were other types of readerships it is difficult to know.

Did you get any feedback from readers?

Well, I had feedback from my own students, of course, but I have not received letters from readers! I can say that undergraduate students usually like the beginning and the end of the book, but chapters three and four are quite difficult to them. These parts of the book consider historiographical issues, and undergraduates typically think about those two chapters as a boring list of authors. On the contrary, graduate students seem to prefer exactly the historiographical chapters, because I speak about social studies, a field not much loved by elder historians of science in Italy.

And what about reviews and other type of media responses?

The book was reviewed in popular science magazines and in newspapers. I had been interviewed several times by radio and TV journalists but, as far as I know, the book had just one review by a scholar. It was by historian of science and philosophy Paolo Rossi, in a major Italian newspaper. His review was very positive indeed – in part a criticism on gender studies, of course! I was very proud of that review, although I do not think it brought a lot of readers to the book.

Do you think that you managed to fulfill the aims of the book, as they are exposed in its introduction? (“*History of Science as a way of understanding how we get to modern science and society, to present a history of the History of Science and a reading guide for History of Science*”).

I think it would be nice to ask this to the readers! Anyway, yes, I think that undergraduate students liked mainly the first of those goals: using the history of science as a tool to understand recent science, and our societies. Concerning the part on historiography, I do hope I could bring some new young readers to social studies.

How did you tackle the writing of the book? Was it hard to find a balance between historical scholarship and the aim of appealing to more general readerships?

It was very hard. Mainly because I didn’t have any pattern. The pattern for the editor was an already well established French series – *Que sais je?* – which has a rigid format: 126 pages, 4-6 chapters. So the format was defined, but I could write about anything! I was totally free to choose the organization of the content and it was difficult to decide the structure of the book. At the same time that was a very fun challenge, as usual a mix of lucid planning and chance. For example, in a sense, it was the place where I wrote the book, that determined the authors who appear in its second chapter. George Sarton, James Conant, Marc Bloch, Gaetano Salvemini... I “encountered” them in the Widener library, while I was a visiting scholar at Harvard University and was writing the book.

I decided to provide a view on the present and then a view on the building of history of science as a discipline. I tried to explain why it can be so exciting to read and research on the history of science. Then I wrote an overview of – just a few! – of the most important authors and themes. I tried to intercalate authors with themes: authors working on the history of evolution, history of technology, history of medicine... I also alternated two types of chapters on science historiography: one displaying a more traditional history of science approach, and the other one on science as culture. I tried to diversify.

Did you have to give up any idea that you had right at the start of conceiving the book?

Complicate to say. In a sense, no, because, as I said, I was totally free to choose the themes and authors I preferred. But, on the other hand, I had to leave out a lot of stuff I researched

on, because of the book length: as I said, just one hundred and twenty six pages. Of course, writing a popular book involves a lot of research, not only on sources, but on language and timing. I had problems with the bibliography, indeed. I had many exchanges with the series' editor because I needed to include more reference to sources, and this was practically impossible because of the established book format. Besides, no footnotes! You know, for an historian, writing without footnotes can be psychologically destabilizing... So, yes I had to cut lots of interesting topics and adapt my historical writing to the established publishing format. At the end that was extremely interesting, and important in knowing how a trade book is built. As I wrote as an historian of science publishing, it is true that a trade book is really the collective work of the author, with the publisher, and the editor! Besides the result of a dialogue with usual interlocutors, of course: colleagues, beloved ones, and... the ideal reader.

What about the title?

The title is not mine, of course. The book got this title because by that time the publisher started to publish in the series books with titles like *Che cos'è... la psicologia (What is... Psychology)* and so on. I pleaded for a question mark at the end of the title. As it is, without, it seems as if *I am going to tell you (authoritatively) what the history of science is*. This is not at all the aim of the book. On the contrary, I was trying to give readers orientation tools, so that they could find their own way. Although it is easy to understand what I think since the first page of that little book, I do not feel I have to fight for this or that historiographical approach.

And the little “bussole” inside the book? (*The bussole are little boxes with descriptions of major concepts which are integrated in the main text of the book.*)

“Bussole” is the name of the series; it means “brúixola” in Catalan or “compass” in English. These boxes highlight certain concepts and their number was fixed too. I had a list of things to do from the editor. I had to introduce at least one of these “bussole” per chapter, as well as extremely concise summaries at the end of each chapter. It was not easy, and it took a lot of work! And no pictures, no drawings... I insisted to have the one about the *two cultures* (p.12) because I liked it very much, but it was not possible to introduce other pictures.

This seminar series is subtitled *Pleasures and Pitfalls of Historical Narrative*, can you tell us what were the pleasures in the making of this book and if there were any pitfalls?

Well, the pleasure is that I really learned a lot. I did a real work of craft and, in the final stages, in close collaboration with the editors. You have to find consensus between your ideas and those of the publisher and the staff of the series. And it was so fascinating to go back to the origins of history of science. It was very interesting to work on Sarton's papers, for example,

one of the so-called “founding fathers”, so far away from my current approach as an historian of science!

There were some problems, as I have told you, but not so many. Well, a major problem was that after publishing this, my second book, which required a lot of work, I thought I would be able to get a stable job and ... in fact, that was not the case. But, of course, that is another story!

Your book is in its seventh edition. It's a great success.

Just two weeks ago the publisher told me that they have printed a total of 4,300 copies. But this sounds strange with seven reprints. Anyway, they say that in Italian universities only 30 per cent of the textbooks are purchased, the rest is photocopied. This means that maybe a lot of people have photocopied my book! Actually, the only autograph I have been asked for was on a photocopied copy!

Do you know if there will be any translations of the book?

No, I don't think so. The publisher should be active in this sense, but clearly he earns enough with the Italian edition. I don't have an agent, and I am quite indifferent to that. I know, it's a mistake, I should be more ambitious, and I should learn from the science popularizers I study. I am not trying to be a “beautiful soul”; I am just saying that part of an author's duties should be to promote her or his own book.

Your book is the only book in this seminar series devoted to popularizing the discipline of history of science itself. Do you think that this should be more common among historians of science? Do you think that it is important for the making of history of science as a discipline?

Concerning Italy I do think it would be important to be able to tell about our researches to a wider public, in particular to our colleagues in other disciplines. For example, we should speak more clearly to general historians, economic historians, sociologists and, above all, to scientists. The lack of audience is a real problem for the history of science in Italy, where the field is not growing enough. This is related with the lack of authors able to write interesting books and articles for a wider audience: typically, Italian historians of science write for their own little community. A dog chasing its tail. On an international level, in the last years I think that the so-called “Sobel effect” has pushed scholars to divulge their work. Of course great examples are the books of colleagues who gave talks in this series. Or just think about the recent *The Philosophical Breakfast Club* by Laura J. Snyder. Indeed a very fun book, a great example of how to be able to write about your own, specialist academic research for a wide audience, of scholars too.

Do you think that there is too much academicism in history of science writing?

Yes, of course. There is this hyper specialization that Jaume and Josep talk about in the introduction to the series. But this is normal; this is common in any discipline. This is the way research works, in science as in its history. It is important to find sometimes in your career the time to write for a wider audience. In the English speaking world this is a well established tradition, but not in Italy. As I am going to say later, in my talk at the Institut d'Estudis Catalans, well... I do fear that the discipline called History of Science risks to disappear in Italy! The Italian community has had big problems in the last twenty or thirty years in remaining open to the news coming from abroad, consequently, apart from the usual few exceptions, it has not been able to contribute to the international debate.

Maybe there is a lack of a serious focus on narrative and writing among historians of science?

Certainly there was in Italy, but not in the English speaking world. As you know, in the last years several historians of science have written about that. Me too, actually.

What do you think about the current state of science popularization? What role should history of science play in science popularization?

In my opinion history of science is a perfect tool for science popularization, and I think that science popularization is in good health, it has a rich publishing market, in Italy too. In Italy there are publishers and authors to produce high-level science books, publishers and authors who are – as they have also been in the past – crucial in translating into Italian the best publications coming from the edge of science. South of the Alps the problem is not the production of good science popularization. The problem is the public. In Italy readerships are very low; in 2010 only 44% of the population read one book! It's one of the lowest rates in Europe. But if the problem is the public, the solution is not popularization; in my opinion the solution is education, formal education, at school.

Concerning the history of science as a tool to introduce people to science, yes, I think it can work. But I think it can work if you start from the present, where we live, where non experts live, and then you can go back to the past. In other words, exactly the contrary of the classic Conant's project.

Well, I was going to ask you about the role that history of science should play in science education. Do you think that there is a lack of history of science in science education?

Again, in my opinion this remains a problem in Italy. Traditionally, history of science is in Philosophy departments. Recently, in occasion of a new university reform, for many, complicate reasons, of course, not necessarily scientific reasons, the community of Italian historians of science decided to aggregate with logicians and science philosophers. On an international level historians of science, besides philosophers and general historians, are trying a dialogue with scientists, sociologists, ITC experts, and so on. I personally think that this is an

Interview to Paola Govoni

“Communicating science: pleasures and pitfalls of historical narrative”

Miquel Carandell



interesting way. Just think about new research areas such as Culturomics. That new research field has been possible thanks to the collaboration between people working in different fields, scientific and humanistic fields. Yes, as an historian of science publishing I am very much interested in the digital flux of culture... And as an historian of popular science produced by professional scientists, of course, I think that STS departments and centers are rather interesting institutional experiments which are worth trying.