

**Parallel Session 20: Museums and Science Centres in the transmission of
cultural diversity**

**SCIENCE IN MUSEUMS, NOTES FROM A PERIPHERAL
EUROPEAN COUNTRY**

Ana Delicado

*Instituto de Ciências Sociais da Universidade de Lisboa, Av. Prof. Aníbal de
Bettencourt, 9, 1600-189 Lisboa, Tel: 00351217804700;
E-mail: ana.delicado@ics.ul.pt*

Abstract

This paper aims to discuss what connection is there between science production and science communication through museums in a peripheral European country (Portugal), where the development of both science and scientific museums is very recent.

Key words: scientific museums, Portugal

Text

Opening remarks

This paper is partly inspired by an episode that occurred at a workshop on communicating science held in Portugal last year. The session was being chaired by a journalist and his opening words were to this effect: since there is not much science being done in Portugal, the main mission of Portuguese scientists in communicating science is to help us, journalists, translate information about the discoveries and innovations made in other countries.

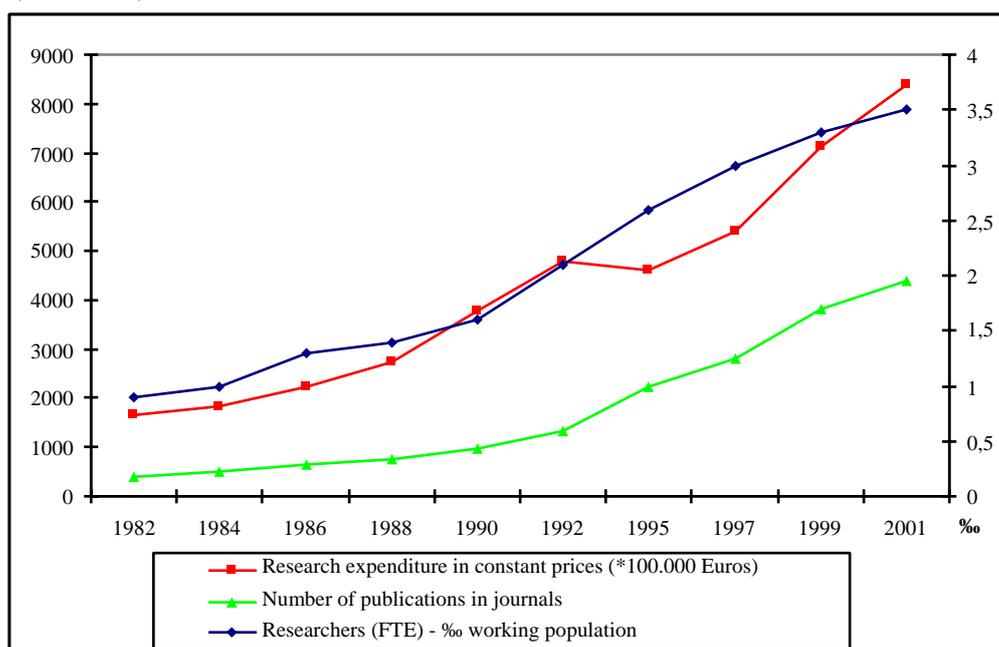
Though it is true that Portuguese science is far from being in the lead of international R&D and Innovation, it has experienced in recent years a surge of investment and growth that seems to have failed to attract the attention of the public and of the media. What part do scientific museums play (or fail to play) in disseminating information about current research being done in Portuguese institutions?

Drawing on ongoing research for a PhD thesis¹, this paper attempts to debate this issue, based on interviews to museum and science centre directors and to the head of the national agency for promoting scientific culture, as well as documentary and exhibition analysis.

The growth of scientific research in Portugal

After centuries of neglect (see Gonçalves, 2001), Portuguese science has grown considerably in recent years: the number of research centres and research personnel has augmented, government funding and total research expenditure have risen, the research results are increasingly divulged among the world scientific community, through publication in international peer reviewed journals (see Figure 1).

Figure 1 – Research expenditure, researchers and publications in Portugal (1982-2001)



Sources: OECD, Main Science and Technology Indicators database, 2003; Observatory of Science and Higher Education (Portugal); ISI, National Citation Report for Portugal 1981/2002

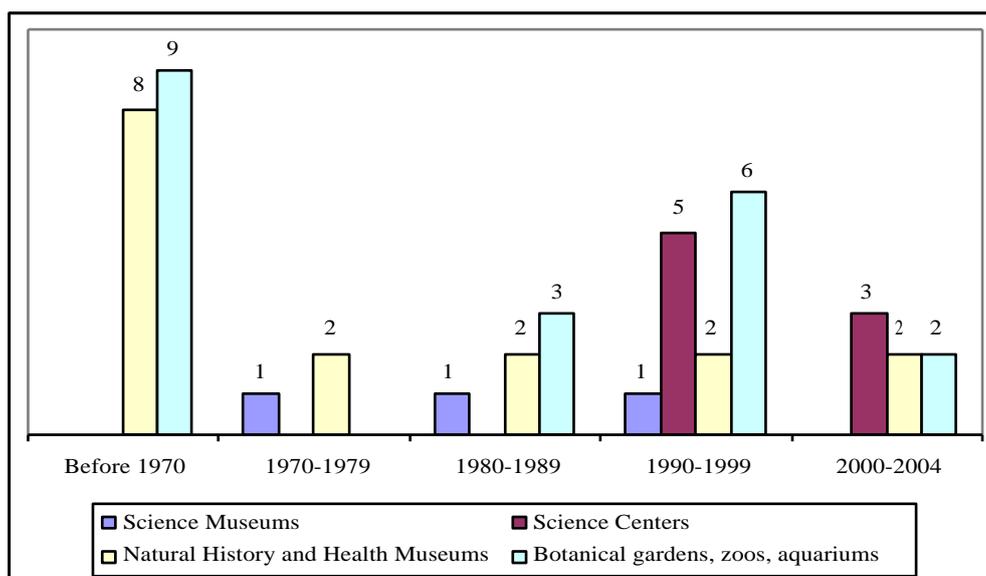
This development has been mainly due to three factors: political change (the transition to democracy thirty years ago, the creation of a Ministry for Science and Technology in 1995), the expansion of higher education (a substantial increase in the number of graduates, the establishment of dozens new public and private universities in the last two decades) and integration in the European Union (which has meant not only access to structural funding but also the need to comply with common policies for promoting research and innovation).

The growth of scientific museums

The late development of Portuguese science has been reflected on the creation of scientific museums (see Figure 2). Before 1970 there were merely a few natural history museums, botanical gardens and zoos. Since then, just three science museums have been created and only one of these is regularly open to the public. However, in recent years, government investment has also reached the area of scientific culture, through a large array of initiatives that have included the creation of science centres scattered throughout the country and some support to more traditional science and natural history museums.

These scientific museums are affiliated either to universities or to the Ministry of Science or to local authorities. Nevertheless, in the majority of cases there is a strong participation of university lecturers and researchers as directors or in scientific advisory boards.

Figure 2 – Scientific Museums in Portugal, by type and by first year of opening



But does this mean that these museums attempt to show what kind of science is being produced in Portugal?

Scientific research in scientific museums

Sadly, no. Though there are known difficulties in exhibiting contemporary science (see several articles in the works edited by Farmelo and Carding, 1997 and Lindquist, 2000), most museums make absolutely no mention to current research and to Portuguese research centres and researchers. Partly due to the financial constraints that hinder most of the museums, there is practically no homegrown development of exhibitions: there is still a strong reliance either in traditional historical presentations or in ready-made displays acquired abroad. Since science diffusion activities have very little value in scientific careers, most museums are chaired or advised not by active researchers but by professors approaching retirement. Additionally, one of the science centres, run by an industrial association, had plans to include an area where research institutions could show to the public (and to prospective business partners) their new research results, prototypes and innovations. Yet, this has never been put into effect, given that no researcher has ever shown interest in the initiative.

However, there are exceptions. On the one hand, since most natural history museums also function as research centres, some do include in their exhibitions a few references to their research activities and to the scientific labour that underlies the items on display (this is more common in palaeontology exhibitions). On the other hand, most museums and science centres promote many other activities besides exhibitions in which scientists appear fairly more interested in participating: lectures, debates, live experiences, field visits and guided tours of laboratories.

Though science is by nature universal, if public understanding of science is to be achieved through scientific museums, it seems quite a lot more effort has to be put into exhibiting current Portuguese research.

¹ The PhD research is being supported by a grant from the *Fundação para a Ciência e Tecnologia*.

References

- Farmelo, G., Carding, J. (Eds.) (1997). Here and now: contemporary science and technology in museums and science centres. London: Science Museum
- Gonçalves, M. E. (2001). A importância de ser Europeu: ciência, política e controvérsia sobre o risco da BSE em Portugal. In J. A. Nunes and M. E. Gonçalves (Eds.)
- Enteados de Galileu? A semi-periferia no sistema mundial da ciência* (pp. 171-207). Porto, Portugal: Afrontamento
- Lindquist, S. (Ed.) (2000), Museums of modern science. Canton: Watson Publishing International

