Writing the history of knowledge in Brazil

Escrevendo a história do conhecimento no Brasil

Peter Burke

Cambridge University.
Cambridge – United Kingdom
upb1000@cam.ac.uk

Received on 10 Oct. 2017. Approved on 4 Dec. 2017. BURKE, Peter. Writing the history of knowledge in Brazil. *História, Ciências, Saúde – Manguinhos*, Rio de Janeiro, v.25, n.3, jul.-set. 2018, p.859-869.

Abstract

This article surveys recent contributions to the history of knowledge in Brazil, mainly concerned with the history of the sciences, and makes some suggestions about the future development of the field, focussing on the different spaces or sites of knowledge (colleges and universities, museums, archives, botanical gardens, observatories, newspapers, foundations and so on) that have proliferated in the last 200 years in particular.

Keywords: science; universities; museums; Brazil; history of knowledge.

Resumo

O artigo examina contribuições recentes para a história do conhecimento no Brasil, principalmente relacionadas à história das ciências. Lança sugestões para o futuro desenvolvimento do campo, destacando diferentes espaços ou locais de conhecimento (colégios e universidades, museus, arquivos, jardins botânicos, observatórios, jornais, fundações, entre outros) que proliferaram particularmente nos últimos duzentos anos.

Palavras-chave: ciência; universidades; museus; Brasil; história do conhecimento.

http://dx.doi.org/10.1590/S0104-59702018000400014



In 2015, the Brazilian Secretary for Science and Technology described the annual Semana Nacional devoted to those topics as a "marco da história do conhecimento brasileiro." The Secretary was certainly up-to-date in referring to the history of knowledge, a topic of growing interest in the United States, Germany, France, Britain and elsewhere, widening out from the history of science (a discipline established in the academic world about a century earlier), and also from intellectual history. One might even speak of a recent "cognitive turn" in the history of historical writing as in the history of psychology or that of literary studies (Ty, 2010).

The history of knowledge differs from the history of "science" (a nineteenth-century western concept) by including more kinds of knowledge, including practical skills ("knowhow" or "implict knowledge"). It differs from intellectual history by an emphasis on the history of the institutions that undertake research and teaching (Burke, 2007).²

To what extent has Brazil participated in this trend, or movement? A considerable number of valuable studies of different aspects of this vast subject have been published, with historians of science once again as the pioneers.³ However, there is not, so far as I know, any attempt to bring all these studies together, to reveal connections between developments in different domains. Hence it might be useful to return to the famous and ambitious question posed in 1845 by Carl Friedrich Philipp von Martius, "Como se deve escrever a história do Brasil?" (Martius, 1845). More modestly, we might ask, how might the history of knowledge in Brazil be written?

The task is at once impossible and worth attempting. It is impossible because of the variety of knowledges, of the need to have access to the brains of every Brazilian, or at least of samples of every type of Brazilian, living or dead. It is worth attempting because knowledge is an essential part of every kind of history, political, economic and social as well as intellectual or cultural. It is also worth attempting, even if similar projects have been attempted elsewhere, because the history of knowledge is necessarily different in different parts of the world. Even in studies of Brazil, it would be only prudent to use the plural forms, "histories" of "knowledges," than the singular ones. There is, or at least there should be, an ecology (including a historical ecology) of knowledges, since different knowledges develop in and depend on different niches in different environments (Rosenberg, 1979).⁴

This article presents an outline of a book that I am not writing and indeed do not know enough to write, although I should very much like to read a study of this topic. It offers a kind of bibliographical essay together with a few reflections on different ways in which the history of knowledge might be written in the case of Brazil, from colonial times to the present. In what follows I shall speak in the first person plural, assuming that some scholars will soon be interested, if they are not already interested, in this collective enterprise, whether they choose to pursue it individually, in teams or in informal groups.

One question is unavoidable at the start. What is knowledge? It may be useful to distinguish information (which is relatively "raw") from "knowledge" (which has been processed or "cooked" in the sense of being verified, classified, and so on) (Burke, 2000). On the other hand, for historians, as for sociologists or anthropologists, it is not useful to distinguish knowledge from belief. I also doubt whether it is fruitful in practice to

distinguish *saber*, a term occasionally used in historical contexts, from *conhecimento* (Horta, Petter, 2002; Schneider, 2013).

The current state of play

What has been done so far? A good deal has been published in the last thirty to forty years on the history of science in Brazil, including large collective volumes, mainly by Brazilian scholars but including some foreign contributions as well (Ferri, Motoyama, 1979-1980; Dantes, 2001a; Motoyama et al., 2004). Publications concentrate on the history of medicine, doubtless because Brazilian achievements are particularly notable in this field, especially from Oswaldo Cruz onwards (Stepan, 1976; Benchimol, 1999; Peard, 1999). As their titles suggest, a number of these studies are concerned with the history of institutions as well as with the history of ideas (Carvalho, 1978; Dantes, 1980; Schartzman, 1991; Benchimol, Teixeira, 1993; Lopes, 1997; Figueirôa, 1997; Dantes, 2001b; Sá, 2006). The majority are concerned with the nineteenth and twentieth centuries. Relatively little has been published on the history of science in the colonial period.

The history of the social sciences in Brazil lags behind the history of the natural sciences. A few publications are concerned with the history of sociology, political science, anthropology, geography and of history itself (Fernandes, 1958; Miceli, 1989; Forjaz, 1997; Salzano, 2009; Guimarães, 1994). Predictably, given the high status of this social type, several studies of Brazilian intellectuals have been published, one of them extending to seven volumes (Martins, 1977-1979; Miceli, 2001; Souza, 2008). There is a tradition of books on the history of the book, together with some recent publications on the history of journalism (Sodré, 1966; Hallewell, 1982; Deaecto, 2011; Ribeiro, 2000; Romancini, Lago, 2007; Molina, 2015). There is also a shelf of studies on the history of radio and television, but with a few exceptions, these studies pay relatively little attention to the use of the media to disseminate information or knowledge (Ortriwano, 1985).

Two major lacunae require a mention here: studies of indigenous knowledge and, to a lesser extent, studies of universities. Indigenous knowledges have been attracting increasing attention from anthropologists, together with some geographers and economists, but not from historians (Voeks, 2007; Cunha, 2006, 2012; Castro, 2012). However, these knowledges have a history, however difficult it may be to reconstruct it, especially before the years around 1900. In contrast, changes in the recent past are clear enough. Although the Convention on Biological Diversity held in Rio de Janeiro in 1992 recognized the importance of indigenous knowledges and suggested measures for their protection, in an article published 15 years later, a researcher working on Northeastern Brazil noted a "crisis in ethnobotanical knowledge", indeed, its possible extinction, because younger members of traditional communities were losing interest in it (Voeks, 2007).

Compared with the situation in many other parts of the world, there are few published studies of Brazilian universities, even considering the fact that the university was a relatively late arrival on the Brazilian intellectual scene. Several important studies of Brazilian science end in the 1930s, just when Universidade de São Paulo (USP) and Universidade do Distrito Federal (UDF) were established (Dantes, 2001a; Ferri, Motoyama, 1979-1980; Figueirôa, 1997;

Sá, 2006). The relatively recent proliferation of Brazilian universities (over five hundred in the public sector and over two thousand in the private sector) still awaits its historian. Looking at what has been published in this field, we find a remarkable contrast between a handful of articles on the comparative history of Brazilian universities and a seven-volume study of a single faculty in one of them (Veiga, 1980-1997; Lefebvre, 1990; Fávero, 2006; Abdounur, Mattos, 2012).

The need to link the micro- and the macro-approaches to the production and dissemination of academic knowledge reproduces in miniature the general problem of actual and potential connections between knowledges, a problem that specialists usually ignore and that only generalists can address with any hope of success. How can we move on from here? How can our fragmented knowledge of knowledges be put together? In order to achieve a clear view of the history of Brazilian knowledges from different perspectives, we need more studies of the colonial period, of the humanities, and of indigenous traditions. Most of all, we need attempts at synthesis.

The immediate future

If we are trying to view Brazilian knowledge as a whole, two concepts that have been used more and more frequently in the last few years may be useful. The first is that of an 'order of knowledge' in the sense of a system or network, linking different knowledges, individuals, groups and institutions. The second is the concept of a "culture of knowledge," reminding us that the knowledge acquired by individuals is shaped by the culture in which they grow up, as exiles become all too painfully aware when they begin to live and work in their new environment.⁸

As usually happens, these concepts raise problems as well as solving them. The most obvious one is probably the least difficult to deal with: "order" and "system" are, or appear to be, static, while knowledges are in constant flux. However, historians are used to dealing with this problem, writing about "the feudal system" yet recognizing changes in the relations between lords and vassals over the centuries. The problem of intellectual frontiers – where one order or culture of knowledge ends and another one begins – requires more discussion.

In the first place, the concept of a single order or culture of knowledge in Brazil may well be too systematic, privileging links and encounters and neglecting gaps and "desencontros," between local knowledges for instance, most obviously the indigenous knowledges that were and are separated by language as well as by space. It is probably wise to distinguish a dominant order of knowledge from subordinate, subjected or subaltern ones, but it would surely be a mistake to treat even that dominant order as monolithic. The academic realm is only part of the dominant order, and within it there is little communication between the "two cultures" of the humanities and the natural sciences, a gulf that was already noted more than half a century ago, in the case of Britain, by the physical chemist turned novelist C.P. Snow (2001). Since Snow's day, specialization has gone much further and it cannot be assumed that one kind of natural scientist, such as a physicist, knows what another kind, a zoologist, say, is doing.

In the second place, we face the opposite problem. The dominant order in Brazil was not and is not independent. In the colonial period, that order was shared (unequally) with Portugal, since Brazil had no press or university of its own. Since that time, two opposite trends are visible. One is the nationalization of knowledge, in Brazil as in so many other newly independent nineteenth-century states, a process illustrated by the foundation of the national archives, the renaming and reconstruction of the royal library as the Biblioteca Nacional de Brasil and of the royal museum as the Museu Nacional, the foundation of the Museu Histórico Nacional, the publication of the *Grande Enciclopédia Portuguesa e Brasileira* and so on.⁹ It is even possible to speak of the "nationalization of nature:" the Museu Paulista, for instance, displays vases containing water from the principal rivers of Brazil.

The opposite trend, coexisting with the first, as opposite trends often do, is that of the "denationalization" of Brazilian knowledge, its incorporation in a larger order or several different orders (Latin American, for instance, Western and global). This trend has often been described and analysed in terms of intellectual dependency (described more vividly by Brazilians as "aping," *macaqueação*) a dependence first on the orders of knowledge dominant in France, Britain, Germany and the United States and today on a kind of global order.

One thinks, obviously, of the importance in Brazilian intellectual life of expatriate scholars, for instance, not only of Martius but also of the German zoologists Johann Baptist von Spix and Hermann von Ihering, the Swiss naturalists Louis Agassi and Émil Goeldi, the French physiologist Louis Couty, the Swedish botanist Albert Löfgren, the North American geologist John Casper Branner, the Austrian critic Otto Carpeaux and others, not to mention the collective *mission française* to Brazilian universities in the 1930s, when professors such as Fernand Braudel and Claude Lévi-Strauss, who both taught at USP, were able to deliver their lectures in French (Lefebvre, 1990). Today, we might think of the large numbers of foreign books, whether translated or in the original language, in the academic sections of bookshops, or of the numbers of Brazilians studying abroad, or of the extra credit given to professors who publish their articles in foreign-language journals.

All the same, it would surely be a mistake to explain intellectual dependency entirely by local demand for the foreign, important as that has been in Brazilian history. Foreigners have invested money and effort to implant their knowledges in Brazil. For example, the Ford Foundation played an important role in the establishment of the discipline of political science in Brazil in what has been called "a kind of enlightened cultural imperialism" (Forjaz, 1997). As in the case of the economic history of Brazil, it may be useful to think in terms of centres and peripheries: innovative "centres of calculation" on one side and more traditional provincial knowledges on the other. In the general history of science, the point was vividly, crudely and controversially made by George Basalla (1967), writing about the export of what he called the "raw materials" of knowledge from the periphery to the centre, where they were processed (or, as I said earlier, "cooked") and then re-exported. Basalla's model obviously needs refinement to take account of discoveries by scientists and scholars on the periphery, discoveries for which they have not always received due credit, and their creative adaptations of ideas coming from the centre. A distinction between "objective" and "subjective" peripheries might also be a useful one. In many countries, intellectuals

suffer from what Australians call the "cultural cringe," a sense of inferiority to colleagues who are fortunate enough to work in Paris, or in Harvard, or Cambridge.

Within Brazil, intellectual centres and peripheries have also existed and continue to exist. One way to put the idea of an order of knowledge into practice is to map the different sites of knowledge, or in the now famous phrase of Christian Jacob (2007), *lieux de savoir* (cf. Jacob, 2014). Jacob's massive volumes follow the model of Pierre Nora's still more massive project, *lieux de mémoire*. Nora's initiative has been imitated in many countries, but Jacob's has not, although a few Anglophone geographers do approach knowledge in this way (Livingstone, 2003; Finnegan, Wright, 2015). The production of a collective volume on the history of "sites of knowledge" in Brazil would be a major step towards a synthesis.

Such a volume would require a map, or more exactly a series of maps, of knowledges in Brazil. Such maps might combine geography with chronology, noting the emergence and proliferation of different spaces such as bookshops, museums, academies, universities, foundations such as CNPq and so on, not forgetting temporary sites. These temporary sites include exhibitions, such as the Exposição de História do Brasil held in Rio de Janeiro in 1881 or the biennial book fairs in São Paulo, beginning in 1970, and also congresses, such as the Afro-Brazilian Congress held in Recife in 1934 or the ones that the Associação Nacional de Pós-Graduação e Pesquisa em Ciências Sociais (ANPOCS) has been organizing since 1976 (Barbuy, 2011). As a modest beginning, the appendix to this article offers a brief and incomplete chronology of important "places of knowledge" from the first Jesuit colleges, founded in the 1550s, to the twenty-first century.

Such maps might reveal major geo-cultural shifts such as the rise and fall of the North-East (Salvador, Olinda and Recife), followed by the rise and fall of Rio de Janeiro as the principal site of sites, followed by the rise of São Paulo from the 1890s onwards. The chronology provokes a question: Is São Paulo still dominant? Or is knowledge becoming detached from place, in Brazil as elsewhere? The chronology, incomplete as it is, also suggests a major shift from few sites of knowledge to many, a proliferation driven by the rise of the numbers of students, as the population has increased and higher education has been reaching a greater proportion of young people.

A final suggestion, returning to Martius, is that the history of knowledges in colonial Brazil might be written in terms of the interaction between what he called "the three races" and we might describe as "three cultures." Gilberto Freyre was of course a pioneer in this field, since his studies of what he liked to call the "interpenetration" of cultures had a place for knowledges, among them the culinary knowledge of Afro-Brazilian cooks. If a history of the encounters between Portuguese-speaking Brazilians and indigenous knowledges comes to be written, a major theme in such a history will surely be hybridization.

The recent conflict over intellectual property in traditional medicine, involving the Krahó (a group from the state of Tocantins), and researchers from UNIFESP, offers a vivid example of this process. On one side, we find bio-prospectors wishing to make use of indigenous knowledge and on the other, an indigenous people working with lawyers and anthropologists to claim compensation for the dissemination of this knowledge. There has been a collision between two intellectual worlds, two cosmologies, but they appear to be commensurable – at least it has proved possible to translate from the language of one

world into that of the other. This case also raises the awkward question, Whose intellectual property? That of the shamans (*pajés*)? That of all the Krahó? Or that of their neighbours as well (Kleba, 2008, 2009; Cunha, 2006).

More generally, the history of knowledges in Brazil might be studied and written in terms of the interaction between what different groups of immigrants (Italians, Japanese, "Turks" and so on) brought with them and what was already in place when they arrived, or, still more generally, in terms of collisions, hybridizations and interpenetrations of different cultures of knowledge.

ACKNOWLEDGEMENTS

This article develops themes presented in a paper at the conference "Sites of Invention: Latin America and the Global History of Historical and Anthropological Knowledge," Institute of Latin American Studies, University of London, 9 June 2016. My thanks to participants for their questions and comments.

NOTES

- ¹ Quoted at http://snct.mctic.gov.br/semanact/opencms/index.html.
- ² An expanded version can be found in Burke (2011).
- ³ My apologies to anyone whose contribution I have overlooked.
- ⁴ The phrase is becoming increasingly common in different contexts, from feminism to management.
- ⁵ For a critical guide to what has been published, see Kropf and Hochman (2011).
- ⁶ An exception is Prestes (2000). Cf. Motoyama (2004).
- ⁷ For a more traditional approach to historiography, see Rodrigues (1979).
- ⁸ On orders of knowledge, see Burke (2016, p.25-28); on cultures of knowledge, see the project directed by Howard Hotson, <www.culturesofknowledge.org/>; on exiles, see Burke (2017).
- ⁹ On the nationalization of knowledge, see Burke (2012, p.192-197), and Schwarcz, Dantas (2008).
- ¹⁰ Cf. the critique by Chambers (1993), and Basalla (1967). On Brazil, see Kropf and Hochman (2011).

REFERENCES

ABDOUNUR, Oscar; MATTOS, Adriana Cesar

The introduction of the European university system to Brazil. In: Renn, Jürgen (Ed.). *The globalization of knowledge in history*. Berlin: Routledge. 2012.

BARBUY, Heloísa.

Cultura de exposições em São Paulo. In: Lopes, Maria Margaret; Heizer, Alda (Ed.). Colecionismos, práticos de campo e representações. Campina Grande: EDUEPB. p.255-266. 2011.

BASALLA, George.

The spread of Western science. *Science*, v.156, n.3775, p.611-622. 1967.

BENCHIMOL, Jaime Larry.

Dos micróbios aos mosquitos: febre amarela e revolução pasteuriana no Brasil. Rio de Janeiro:. Editora Fiocruz. 1999.

BENCHIMOL, Jaime Larry; TEIXEIRA, Luiz A. *Cobras, largartos e outros bichos*: uma história comparada dos institutos Oswaldo Cruz e Butantan. Rio de Janeiro: Editora UFRJ. 1993.

BURKE. Peter.

Exiles and expatriates in the history of knowledge, 1500-2000. Lebanon NH: Brandeis University Press. 2017. [Edição brasileira: *Perdas e ganhos*: exilados e expatriados na história do conhecimento na Europa e nas Américas, 1500-2000. São Paulo: Unesp. 2017.]

BURKE, Peter.

What is the history of knowledge? Cambridge: Polity Press. p.25-28. 2016. [Edição brasileira: *O que é história do conhecimento*? São Paulo: Unesp. 2015.]

BURKE, Peter.

A social history of knowledge from the Encyclopédie to Wikipedia. Cambridge: Polity

Press. 2012. [Edição brasileira: *Uma história social do conhecimento,* II. Rio de Janeiro: Zahar. 2012.]

BURKE, Peter.

The cultural history of intellectual practices: an overview. In: Fernández Sebastián, Javier (Ed.). *Political concepts and time*. Santander: Cantabria University Press. p.103-127. 2011.

BURKE, Peter.

La historia intelectual en la era del giro cultural. *Prismas: revista de historia intelectual*, n.11, p.159-164. 2007.

BURKE, Peter

Introduction. In: Burke, Peter. A social history of knowledge from Gutenberg to Diderot. Cambridge: Polity Press, p. 9-24. 2000. [Edição brasileira: *Uma história social do conhecimento*. Rio de Janeiro: Zahar. 2003.]

CARVALHO, José Murilo de.

A Escola de Minas de Ouro Preto. Rio de Janeiro: Companhia Editora Nacional. 1978.

CASTRO, Eduardo Viveiros de. Cosmological perspectivism in Amazonia and elsewhere. Manchester: HAU Journal of Ethnographic Theory. 2012.

CHAMBERS, David W.

Locality and science: myths of centre and periphery. In: Lafuente, Antonio et al. (Ed.) *Mundialización de la ciencia y cultura nacional*. Madrid: Doce Calles. p.605-618. 1993.

CUNHA, Manuela Carneiro da. *Savoirs autochtones*: quelle nature, quels apports? Paris: Collège de France. 2012.

CUNHA, Manuela Carneiro da.

"Culture" and Culture: traditional knowledge and intellectual rights. Chicago IL: Prickly Paradigm Press. 2006.

DANTES, Maria Amélia (Ed.). *Espaços de ciência no Brasil, 1800-1930*. Rio de Janeiro: Editora Fiocruz. 2001a.

DANTES, Maria Amélia.

Introdução: uma história institucional das ciências no Brasil. In: Dantes, Maria Amélia (Org.). *Espaços da ciência no Brasil, 1800-1930*. p.13-22. Rio de Janeiro: Editora Fiocruz. 2001b.

DANTES, Maria Amélia.

Institutos de pesquisa científica no Brasil. In: Ferri, Mário Guimarães; Motoyama, Shozo. *História das ciências no Brasil*. v. 2. São Paulo: Editora da Universidade de São Paulo. 1980.

DEAECTO, Marisa Midori. *O Império dos livros*. São Paulo: Editora da Universidade de São Paulo. 2011. FÁVERO, Maria de Lourdes de Albuquerque. A Universidade no Brasil: das origens à reforma universitária de 1968. *Educar*, n.28, p.17-36. 2006.

FERNANDES, Florestan.

A etnologia e a sociologia no Brasil. São Paulo: Editora Anhambi. 1958.

FERRI, Maria Guimarães; MOTOYAMA, Shozo (Ed.).

História das ciências no Brasil. 3 v. São Paulo: Editora da Universidade de São Paulo. 1979-1980.

FIGUEIRÔA, Silvia Fernanda de Mendonça. *As ciências geológicas no Brasil*: uma história social e institucional, 1875-1934. São Paulo: Editora Hucitec. 1997.

FINNEGAN, Diarmid A.; WRIGHT, Jonathan J. (Ed.).

Spaces of global knowledge: exhibition, encounter and exchange in an age of empire. Farnham: Ashgate. 2015.

FORJAZ, Maria Cecília Spina.

A emergência da ciência política acadêmica no Brasil. *Revista Brasileira de Ciências Sociais*, v.12, n.35, s.p. Disponível em: http://dx.doi.org/10.1590/S0102-69091997000300007>. Acesso em: 26 fev. 2018, 1997.

GUIMARÃES, Lúcia Maria P.

Debaixo da imediata proteção imperial: Instituto Histórico e Geográfico Brasileiro (1838-1889). Tese (Doutorado) – Universidade de São Paulo, Faculdade de Filosofia. São Paulo. 1994.

HALLEWELL. Laurence.

Books in Brazil. Metuchen: The Scarecrow Press. 1982.

HORTA, José Nunes; PETTER, Margarida. *História do saber lexical brasileiro*. São Paulo: Humanitas. 2002.

JACOB, Christian.

Qu'est ce qu'un lieu de savoir. Marseille: OpenEdition Press. 2014.

JACOB, Christian (Ed.).

Lieux de savoir. Paris: Albin Michel. 2007.

KLEBA, John B.

A socio-legal inquiry into the protection of disseminated traditional knowledge: learning from Brazilian cases. In: Kamau, Evanson C.; Winter, Gerd (Ed.) *Genetic resources, traditional knowledge and the law.* London: Earthscan. p.119-142. 2009.

KLEBA, John B.

Pajés, etnofarmácia e direitos tortuosos: o caso Krahó-Unifesp. Trabalho apresentado no 7. ESOCITE.BR. Brasília. Disponível em: <www.necso.ufrj.br/esocite2008/trabalhos/35972.doc>. Acesso em 27 fev. 2018. 2008.

KROPF, Simone; HOCHMAN, Gilberto. From the beginnings: debates on the history of science in Brazil. *Hispanic American Historical Review.* v.91, n.3, p.391-408. 2011.

LEFEBVRE, Jean-Paul.

Les professeurs français des missions universitaires au Brésil (1934-1944), *Cahiers du Brésil Contemporain*, n.12. Disponível em: http://www.revues.msh-paris.fr/vernumpub/8-J.P%20 Lefebvre.pdf>. Acesso em 26 fev. 2018. 1990.

LIVINGSTONE, David.

Putting science in its place: geographies of scientific knowledge. Chicago: University of Chicago Press. 2003.

LOPES, Maria Margaret.

O Brasil descobre a pesquisa científica: os museus e as ciências naturais no século XIX. São Paulo: Editora Hucitec. 1997.

MARTINS, Wilson.

História da inteligência brasileira. 7 v. São Paulo: Editora Cultrix, 1977-1979.

MARTIUS, Carl Friedrich Philipp von. Como se deve escrever a história do Brasil. Revista do Instituto Histórico e Geográfico Brasileiro, v.6, n.24, p.381-403. 1845.

MICELI, Sérgio.

Intelectuais à brasileira. São Paulo: Companhia das Letras. 2001.

MICELI, Sérgio (Ed.).

História das ciências sociais no Brasil. São Paulo: Vértice. 1989.

MOLINA, Matías M.

História dos jornais no Brasil, v.1: 1500-1840. São Paulo: Companhia das Letras. 2015.

MOTOYAMA, Shozo.

Período colonial: o Cruzeiro do Sul na terra do pau-brasil. In: Motoyama, Shozo (Org.). *Prelúdio para uma história*: ciência e tecnologia no Brasil. São Paulo: Edusp; Fapesp. p.59-117. 2004.

MOTOYAMA, Shozo et al.

Prelúdio para uma história: ciência e tecnologia no Brasil. São Paulo: Editora da Universidade de São Paulo. 2004.

ORTRIWANO, Gisela S.

A informação no rádio. São Paulo: Summus Editorial. 1985.

PEARD, Julyan.

Race, place and medicine: the idea of the tropics in 19th century Brazilian medicine. Durham: Duke University Press. 1999.

PRESTES, Maria Elice B.

Investigação da natureza no Brasil Colônia. São Paulo: Annablume. 2000.

RIBEIRO, Lavina Madeira.

Imprensa e espaço público, 1808-1964. Rio de Janeiro: E-papers. 2000.

RODRIGUES, José Honório.

História da história do Brasil: a historiografia colonial. São Paulo: Companhia Editora Nacional. 1979.

ROMANCINI, Richard; LAGO, Cláudia. *História do Jornalismo no Brasil*. Florianópolis: Editora Insular. 2007.

ROSENBERG, Charles E.

Towards an ecology of knowledge. In: Oleson, Alexandra; Voss, John (Ed.) *The organization of knowledge in modern America, 1860-1920*. Baltimore: Johns Hopkins University Press p.440-455. 1979.

SÁ, Dominichi Miranda de.

A ciência como profissão: médicos, bacharéis e cientistas no Brasil, 1895-1935. Rio de Janeiro: Editora Fiocruz. 2006.

SALZANO, Francisco M.

A antropologia no Brasil: é a interdisciplinariadade possível? *Amazônica*, v.1, n.1, s.p. Disponível em: http://dx.doi.org/10.18542/amazonica.v1i1.133. Acesso em: 28 fev. 2018. 2009.

SCHNEIDER, João Ricardo.

Breve história do conhecimento. Disponível em: https://www.youtube.com/watch?v=W4Z-s6yIIKk. Acesso em: 26 fev. 2018. 2013.

SCHWARCZ, Lilia; DANTAS, Regina. O Museu do Imperador: quando colecionar é representar a nação. *Revista do Instituto de Estudos Brasileiros*, n.46, p.123-164. 2008.

SCHWARTZMAN, Simon.

A space for science: the development of the scientific community in Brazil. University Park PA: Pennsylvania State University Press. 1991.

SNOW, C. P.

The two cultures. Cambridge: Cambridge University Press. 2001.

SODRÉ, Nelson Werneck.

História da imprensa no Brasil. São Paulo: Civilização Brasileira. 1966.

SOUZA, Laura de Mello e.

Brasil: literatura y "intelectuales" en el periodo colonial. In: Myers, Jorge (Ed.). *La ciudad letrada*: historia de las intelectuales en América Latina. Buenos Aires: Katz. 2008.

STEPAN, Nancy.

Beginnings of Brazilian science: Oswaldo Cruz, medical research and policy, 1890-1920. New York: Science History Publications. 1976.

TY, Michelle.

On the cognitive turn in literary studies. *Qui Parle*, v.19, n.1, p.205-219. 2010.

VEIGA, Glaúcio.

História das ideias da Faculdade de Direito no Recife. 7 v. Recife: Editora Universitária Universidade Federal de Pernambuco. 1980-1997. VOEKS, Robert A.

Are women reservoirs of traditional plant knowledge? Gender, ethnobotany and globalization in Northeast Brazil. *Singapore Journal of Tropical Geography*, v.28, n.1, p.7-20. 2007.

APPENDIX - SOME SITES OF KNOWLEDGE IN BRAZIL, 1552-2005

1552	Colégio Jesuíta, Salvador	1876	Escola de Minas, Ouro Preto
1556	Colégio Jesuíta, Piratininga	1881	Exposição de História do Brasil, Rio de
1567	Colégio Jesuíta, Rio de Janeiro		Janeiro
1570s	s Colégio Jesuíta, Olinda		Instituto Agronômico, Campinas
1675	Colégio Jesuíta, Recife	1894	Escola Politécnica, São Paulo
1792	Real Academia de Artilharia, Rio de Janeiro	1895	Museu Paulista, São Paulo
1808	Impressão Régia, Rio de Janeiro	1896	Escola de Engenharia, Porto Alegre
1808	Jardim Botânico, Rio de Janeiro	1896	Faculdade Mackenzie, São Paulo
1808	Academia Real da Marinha, Rio de Janeiro	1897	Academia Brasileira de Letras, Rio de Janeiro
1808	Escola de Cirurgia, Salvador	1899	Escola de Farmácia, São Paulo
	Academia Médico-Cirúrgica, Rio de Janeiro	1899	Instituto de Pesquisas Tecnológicas, São Paulo
1810	Biblioteca Real, Rio de Janeiro (now Biblioteca Nacional do Brasil)	1900	Instituto Soroterápico Federal, Rio de Janeiro (now Fundação Oswaldo Cruz)
1811	Academia Real Militar, Rio de Janeiro	1901	Escola de Agricultura, São Paulo
1818	Museu Real, Rio de Janeiro (later Museu Nacional)	1901	Instituto Butantan, São Paulo
1825	Diário de Pernambuco, Recife	1902	Escola Prática do Comércio, São Paulo
	Jornal do Commercio, Rio de Janeiro	1909	Expedição Rondon para a Amazônia
	Observatório Nacional, Rio de Janeiro	1912	Roquette Pinto viveu com os Nambikwara
	Faculdades de Direito, Olinda e São Paulo	1912	Universidade do Paraná
	Faculdades de Medicina, Salvador e Rio de	1914	Faculdade de Medicina, São Paulo
1002	Janeiro	1916	Academia Brasileira de Ciências, Rio de
1827	Colégio D. Pedro II, Rio de Janeiro		Janeiro
1838	Arquivo Público do Império, Rio de Janeiro	1920	Universidade do Rio de Janeiro (later Universidade Federal do Rio de Janeiro)
1838	Instituto Histórico e Geográfico Brasileiro, Rio de Janeiro	1922	Museu Histórico Nacional, Rio de Janeiro
1839	Escola de Farmácia, Ouro Preto	1925	Biblioteca Municipal, São Paulo (now Biblioteca Mário de Andrade)
1844	Livrarias Garnier abriram uma filial no Rio de Janeiro	1927	Universidade de Minas Gerais
1866	Museu de História Natural, Belém (now	1927	Instituto Biológico, São Paulo
1000	Museu Paraense Emilio Goeldi)	1928	O Cruzeiro
1874	Escola Politécnica, Rio de Janeiro	1929	Museu do Estado de Pernambuco, Recife
1875	Estado de S.Paulo, São Paulo	1930	Museu da Inconfidência, Ouro Preto

- 1931 Livraria José Olympio inaugurada em São Paulo
- 1933 Escola Livre de Sociologia e Política, São Paulo
- 1934 Museu de Etnografia, São Paulo
- 1934 Universidade de São Paulo
- 1934 Mission française
- 1934 Livraria José Olympio transferida para o Rio de Janeiro
- 1934 Congresso Afro-Brasileiro, Recife
- 1935-1937 Universidade do Distrito Federal, Rio de Ianeiro
- 1936-1960 Grande Enciclopédia Portuguesa e Brasileira
- 1937 Sociedade de Etnologia e Folclore
- 1940 Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio de Janeiro)
- 1940 Museu Imperial, Petrópolis
- 1944 Fundação Getulio Vargas, Rio de Janeiro
- 1944 Hospital das Clínicas, São Paulo
- 1946 Universidade da Bahia, Salvador
- 1946 Pontifícia Universidade Católica de São Paulo (PUC-São Paulo)
- 1947 Livraria Cultura, São Paulo
- 1950 Instituto Tecnológico de Aeronáutica, São
- 1951 Conselho Nacional de Pesquisas (CNPq), atual Conselho Nacional de Desenvolvimento Científico e Tecnológico
- 1951 Coordenação de Aperfeiçoamento de

- Pessoal de Nível Superior (Capes)
- 1962 Fundação de Amparo à Pesquisa do Estado de São Paulo (Fapesp)
- 1962 Universidade de Brasília
- 1966 Universidade de Campinas (Unicamp)
- 1969 Centro Brasileiro de Análise e Planejamento (Cebrap), São Paulo
- 1969 Instituto Universitário de Pesquisas do Rio de Janeiro (Iuperj)
- 1970 1ª Bienal Internacional do Livro, São Paulo
- 1976 Universidade Estadual Paulista (Unesp)
- 1976 Associação Nacional de Pós-graduação e Pesquisas em Ciências Sociais (Anpocs)
- 1982 Museu Afro-Brasileiro, Salvador
- 1983 Sociedade Brasileira de História da Ciência
- 1986 Revista Brasileira de Ciências Sociais
- 1988 1º Colóquio Brasileiro de História e Teoria do Conhecimento Geológico, Campinas
- 1992 Convenção sobre Diversidade Biológica, Rio de Janeiro
- 2001 Sociedade Brasileira de Gestão do Conhecimento, São Paulo
- 2004 1ª Semana Nacional de Ciência e Tecnologia
- 2005 Biblioteca Brasiliana Guita e José Mindlin, USP

