

Raj, "Beyond Postcolonialism... and Postpositivism: Circulation and the Global History of Science"

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"[I]t is precisely the mutable nature of the materials—of the men themselves and of the knowledges and skills which they embodied—as also their transformations and reconfigurations in the course of their geographical and/or social displacements, that the focus on circulation helps bring to the fore." [Raj, 2007, pp. 20-1]

Some Crucial Ideas

Although some of these are mentioned in [Raj, 2013], the following are for the most part background ideas lying behind the scenes of Raj's article, more explicitly laid out in [Raj, 2007]:

- * *circulation*: essentially the idea that knowledge is often in transit and this process of transit is a key process in knowledge-making
- * *connected histories*: from Sanjay Subrahmanyam¹ the idea that various networks (i.e. knowledge and trade networks) often overlapped geographically and interacted in mutually constructive ways ¹ [Subrahmanyam, 1997, 2005, 2022]
- * *social history of truth*: from Steven Shapin,² the idea that "testimony and the means by which it is accepted or suspected stand at the practical core of scientific knowledge; that the moral economy of a scientific community relies of necessity upon relations of trust" [Raj, 2007, p. 102] ² [Shapin, 1994]
- * *images of knowledge*: a part of identity formation, "the place knowledge holds inside the value system of a social group at any given time of its history," involving how knowledge is produced, legitimated, etc [Raj, 2007, pp. 166-7]
- * *'open air' sciences*: from Michel Callon,³ "to designate knowledge practices that necessarily involve negotiations between specialists and other heterogeneous groups in their very making and certification" [Raj, 2007, p. 14] ³ [Callon et al., 2009]
- * *contact zones*: from Mary Louise Pratt,⁴ "a space where peoples with different cultural and geographical origins and histories meet and establish ongoing relations" [Raj, 2007, p. 11] ⁴ [Pratt, 1992]

FURTHER, IT IS HELPFUL TO KNOW the literature that Raj is responding to. Raj [Raj, 2007] characterizes two big questions dominating the global history of science literature, or "Science and Empire" studies:

- (1) Needham's Question: Why did modern science arise in the West (Western Europe) and not elsewhere? And what was the nature of non-Western contributions to modern science?
- (2) Basalla's Question: How was it the "Western Science" was diffused/spread across the globe?

Postcolonial and Postidealist History of Science

Raj distinguishes two dominant traditions in global history of science, both with laudable aims but holding onto earlier colonial or positivistic notions of science:

Postcolonial History	Postidealist History
<ul style="list-style-type: none"> –descended from the questions of Needham and Basalla, mostly through attempts at replication and critique –hold onto belief of modern science as unified truth, rationality, and progress –some attempted to view science as a hegemonic "master narrative" of the West, an imposition of "rationality" on "other reasons" 	<ul style="list-style-type: none"> –moving away from science as a set of formal propositions and focusing on materiality, practice, sociality, and politics, with focus on detailed case studies and their contingent, negotiated, and situated nature –retain dogma of the Western origins of science, with the associated dichotomies –some attempts to explain the mobility of science beyond site of origin, via accommodation and negotiation (standardization, multiplication of contexts, etc)

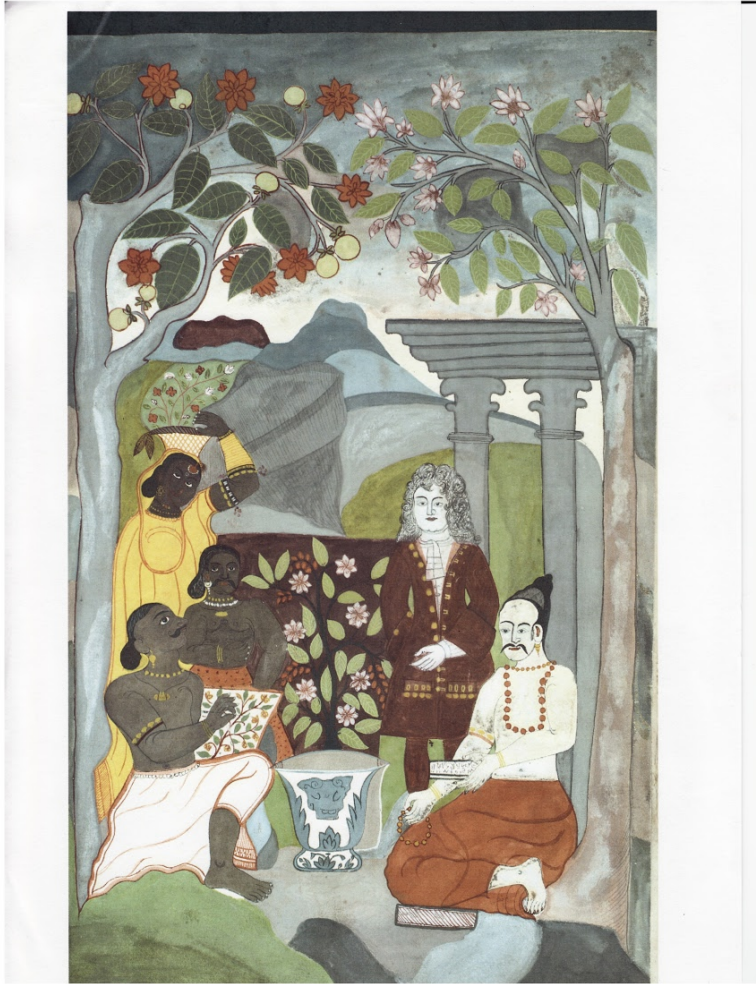
RAJ THEN ARGUES FOR A NEW APPROACH to the historiography of global science that centers circulation and displaces the target for research. This requires two compromises:

- (1) science is no longer seen as just free-floating ideas, but must instead be construed as sets of knowledge, practices, instruments, etc
- (2) circulation is no longer seen as dissemination or a unidirectional process but rather as processes of "encounter, power and resistance, negotiation, and reconfiguration" [Raj, 2013, p. 343]

Knowledge (Co-)Production in India During Colonization (1650-1900)

Raj considers six cases in [Raj, 2007], which I will briefly describe here, two of which are mentioned briefly in [Raj, 2013]:

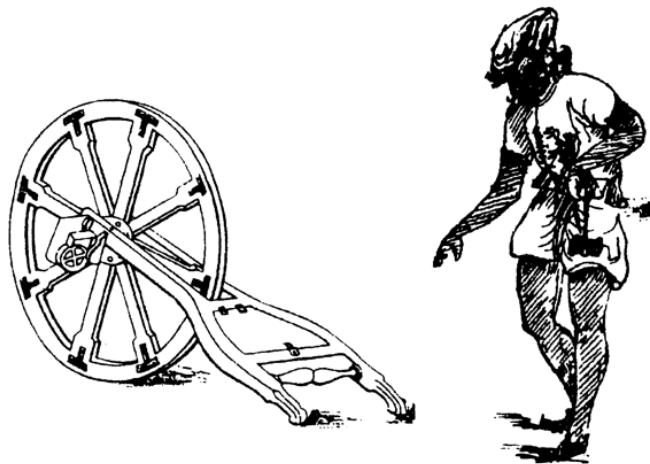
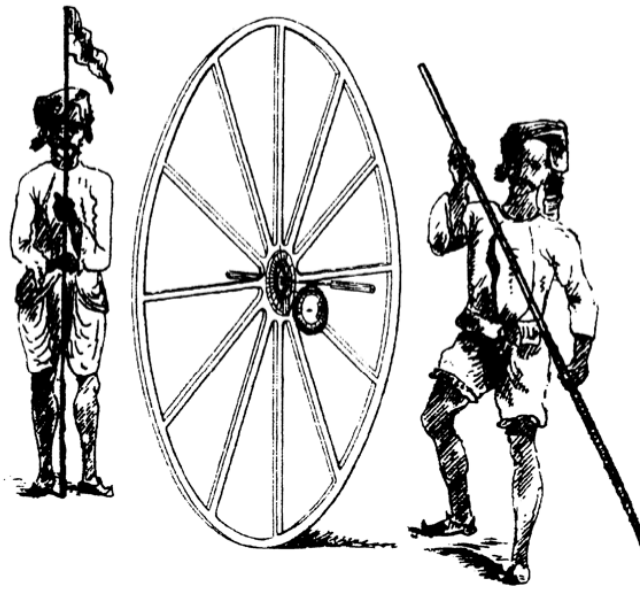
- 1) Tracing the production of the *Jardin de Lorixa*, a fourteen-volume painted herbal with over 700 plants, which reveals the overlapping nature of knowledge and trade networks, as well as the negotiation and collaboration involved in knowledge production in the contact zone
- 2) Discussing the beginnings of terrestrial cartography in India, pointing out that it was not in fact an imposition of British map-making on Indians, but rather was co-produced by the British and Indians, resulting in a new knowledge
- 3) Identifying the establishment of common civility and origin in order to legitimate knowledge produced by the Asiatick Society
- 4) Following the establishment of the college at Fort William in India in order to see how both British and Indian knowledge was integrated into the education of EIC employees, a model that was transferred back to Britain
- 5) Moving on to the founding of Hindu College in Calcutta, which emphasizes that Indians did not simply have Western Science imposed on them, but were active in efforts to cultivate their own educational institutions, which were not direct copies of places like Fort William
- 6) Finally, focusing on the modification and adaptation of instruments used for surveying Central Asia as a part of the Great Trigonometrical Survey of India in order to show how geopolitical issues influenced knowledge production







chandra das.jpg chandra das.jpg



Some Gems/Coal

Gem/Coal: The article is relatively sparse in explanation and historical examples, especially in comparison with the book

Gem: Sustained attention to detail on the history of knowledge production in one region, which takes into account the wider context

Gem: Not only focusing on "great figures" at the height of their career, but also how they gained their skills

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