



the development of sonic skills. *Thinking with Sound* is an important and worthwhile contribution to the study of sonic epistemologies of the twentieth century.

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Omar W. Nasim, *The Astronomer's Chair: A Visual and Cultural History*

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Based on images of seated astronomers and their seating furniture, Nasim tells an interdisciplinary story about the understanding of Western science and scientific labour in the nineteenth century, revealing the cultural interplay of bourgeois notions of comfort, the ideal of heroic energies in science and the prevailing view of the history of humanity and civilization. The astronomer's observing chair as an object and image, Nasim argues, should not be understood as a representation of 'armchair science' but as a cultural artefact within a broader self-image of science that comfortably bundles the supposedly abundant and restless energies of the observer, thus guaranteeing optimal observational output. These very energies drove the modern world, empire and science and shaped the design of astronomical chairs. Nasim thus uses the example of the mechanized observing chair to show relationships between specialized chair design, bourgeois postures and epistemology.

Nasim, whose previous work has dealt with forms of representation in astronomy, especially photography and drawing as astronomical practice, combines history of science and of design, as well as material and art history, in an exciting interdisciplinary approach by placing the astronomical observation chair at the centre of his analysis, both as an image and as an object, following W.J.T. Mitchell's approach. In his exploration of the 'representational field shared by both image and object' (p. 16) of the chair, Nasim dissects the visual, epistemic and moral economies of (the representation of) chairs and the seated. Contrasting the Western astronomer working on chairs with the European phantasm of the 'Oriental' astronomer sitting cross-legged, he sharpens the self-image of the allegedly superior occidental science analysed and thus places the chair as an artefact in global and imperial contexts. Nasim dissects themes of comfort, historicism and the Oriental and Western energies and their influences, which build on each other in the individual chapters of the book, ultimately bringing them together in a broad overall picture.

The book starts with a brief overview of representations of astronomers seated since the Middle Ages, moving to a general association of chairs with prestige and hierarchies. In Chapter 2, 'Home, hierarchy, history', Nasim shows how chairs and postures in general conveyed aesthetic, social and moral orders regarding gender and ideas of civilization by discussing the basic moral economies in which the (observing) chairs are to be understood. Introducing the notion of a new and bourgeois sense of comfort in the nineteenth century, the chapter explains how chairs and their associated postures were informed by norms of behaviour of European middle classes, linking (specialized) design not only with

functionality but also with health, hygiene and etiquette. By illustrating the inseparable connection between these norms and the Enlightenment's hierarchical concept of history, he moves the discourse beyond domestic domains, connecting this moral economy of chairs with the realms of imperialism and colonialism.

The chapter 'Mechanical comforts' then focuses on chairs as objects, discussing mechanical, task-specific chairs emblemizing modernity and differentiating professionalized spheres. Nasim shows how mechanized chairs were built to adjust to the human body, and so were informed by the bourgeois sense of comfort introduced in Chapter 2. In the context of posture, health and morals in the nineteenth century, Nasim explores the transitions of reclining chairs, from their roles as medical technologies (such as dentists' or gynaecological chairs) and 'invalid' chairs for the disabled to observatory chairs. These transitions illustrate how mechanical chairs underwent customization in the pursuit of comfort, ultimately catering to the needs of able-bodied individuals to prevent fatigue and unsteadiness, as the designs 'criss-crossed from one domain to another and sometimes back again' (p. 88). Against this background, the emergence of the astronomer's chair can then be understood as a product of social and cultural forces of the nineteenth century.

Chapter 4 contains a collection of visual and textual examples by nineteenth-century Western travellers of the figure of the cross-legged Oriental scholar and astronomer, juxtaposed with the astronomers sitting in chairs in the earlier chapters. The constructed 'Oriental Other' in his seated posture is represented as lethargic and emasculated, and, moreover, as stationary and premodern. Nasim thus shows how these images of cross-legged scholars not only served to devalue non-European astronomy and knowledge making but were also embedded in the social norms of historicism and notions of civilization and progress. This juxtaposition of the Oriental and the Western 'modern' science unveils a crucial facet of the representational field of the astronomer's chair: a presumed restless, masculine and heroic energy inherent in European and North American science.

The chapter 'Restless energies' elaborates how this gendered and racialized energy represents a vital aspect of the Western self-image of science, impacting not only imperial policies but also the design of the observing chair. Its astronomical function remains elusive without this energy, as the mechanized chair comfortably directs these energies by reducing fatigue and danger, representing a vehicle for accurate science as well as displaying active scientific labour. The coda, then, gives the reader a taste of what Nasim's kind of analysis is capable of: embedding Freud's couch in a similar representational field of historicism, orientalism and (lack of) energy, it becomes an orientalized observing chair for observations of the history of the psyche, 'ultimately confronting the "savage" within' (p. 242).

The only aspect that falls slightly short of expectations is the book's name itself: *The Astronomer's Chair: A Visual and Cultural History* actually offers a wealth of content far beyond what the title suggests. In addition to the beautiful illustrations and rich examples, what captivates is the elegance with which Nasim narrates a cultural history of an object that seems simple at first glance. His interdisciplinary approach effectively exposes the connections between science and society, making it all the more engaging. Despite this richness, the text remains easy to follow, as Nasim carefully introduces and explains the concepts and methodologies of the disciplines. For historians of science in particular, the combination of material history and the history of astronomical practices in cultural context is illuminating, especially as Nasim manages to write a social history of male, white, able-bodied European astronomers of the nineteenth century using gendered and racialized perspectives that enable him and provide an example of how to paint a more nuanced and decolonizing picture of these kinds of personae, scientific objects and images.