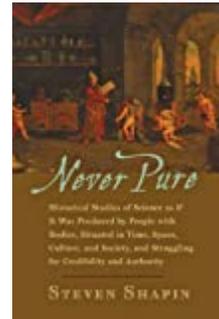




**Steven Shapin.** *Never Pure: Historical Studies of Science as if It Was Produced by People with Bodies, Situated in Time, Space, Culture, and Society, and Struggling for Credibility and Authority.* Baltimore: Johns Hopkins UP, 2010. ix + 552 pp. \$30.00 (paper), ISBN 978-0-8018-9421-3.



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## Science: A Very Human Endeavor

There are certain scholars whom, as a consequence of their spatial attentiveness, geographers seek to claim as one of their own. Steven Shapin—a redoubtable contributor for more than forty years to the literature on the history and sociology of science—is one such scholar. To geographers he is perhaps best known for his work on the geography of science—part of the wider spatial turn in the history of science which has seen an increasing attention paid to the situated nature of the production, circulation, and reception of scientific knowledge.[1] The scope of Shapin’s scholarly interests is, as this volume attests, considerably broader, ranging from rhetoric and credibility, through the social regulation of gentlemanly and scholarly status, to dietetics and the power of proverbs. What links these disparate and interdisciplinary interests, and what provides a connecting narrative to Shapin’s book, is an interest in how knowledge is made credible and how authority is invested in the practices and practitioners of science. *Never Pure* is a rich, readable, and revealing compilation which will offer much to geographers interested in questions of trust and credibility,

decorum and demonstration, evidence and expertise.

To note that a book contains little that is new would, ordinarily, be considered a pejorative assessment. Quite the opposite is true, however, of *Never Pure*, a collection of previously published essays which, in the author’s own assessment, is “somewhat more heterogeneous than is typical” for a historian of science (p. vii). Collections of this kind—what might be thought of as a scholar’s greatest hits—inevitably present problems of organization and coherence, particularly so when drawing together “genres of work often seen as having little to do with each other” (p. viii). Present here are “lightly edited versions” of fifteen pre-existing scholarly treatises and a new contextual introduction—a body of work spanning a quarter of a century and grouped together here in six parts: “Methods and Maxims”; “Places and Practices”; “The Scientific Person”; “The Body of Knowledge and the Knowledge of Body”; “The World of Science and the World of Common Sense”; and “Science and Modernity” (p. viii). This arrangement of material works well and there are relatively few occasions on which empirical examples or theoretic-

cal pronouncements are repeated—at least not to a deleterious degree. What is gained from this juxtaposition is an ability to trace the significance of Shapin’s central themes—trust, credibility, authority—across a range of periods and cultural contexts. What is lost, practically speaking, is the original pagination of Shapin’s articles and chapters, but this is a minor quibble, particularly given the effort which the standardization of typographical style and citations must have cost the author and his copyeditor.

In the book’s introductory essay, Shapin offers an account of various changes, during the past half-century, in the historical understanding of science—a series of intellectual realignments which have led from science being conceived of, generally, as placeless and free from social contingency, to it being recognized as something which is situated both spatially and socially. Whether understood as the result of a cultural or spatial turn, these shifts in understanding have offered a series of insights not always palatable to those who traditionally have viewed scientific knowledge as unlike and epistemically distinct from any other form of human knowledge. As Shapin points out, however, such apparently heretical statements as “science happens within, not outside of, historical time,” “science ... bears the marks of the places where it is produced,” and “science is not one, indivisible, and unified [entity],” are conclusions that have been reached as much by scientists themselves as by sociologists (p. 5). Shapin’s collected essays represent his contribution to certain of these “heretical” reappraisals of science, particularly as they concern the question of what counts as truth, how credibility is earned, evaluated, and attributed, and how ideas circulate and are communicated in historical and cultural context.

Quite how significant the issue of credibility is in Shapin’s reckoning is testified to by his claim that, in an important sense, credibility “is the *only* topic” when it comes to the sociological study of science (p. 19). What underpins this assertion is the belief that science is a “credit-economy” and that to understand how science works, and how the knowledge in which it deals is made and evaluated, it is necessary to appreciate—for any particular temporal or cultural context—credibility’s operation (p. 19). In a variety of ways Shapin’s chapters illustrate the fact that standards of credibility vary across space and through time. We learn, for example, that when it came to the written word Francis Bacon saw rhetoric as a handicap to credibility and cautioned against “ornaments of speech, similitudes, [and] treasury of eloquence” (p. 17). Robert Boyle, meanwhile,

in his experimental essays employed “ornate sentence-structure,” “verbosity,” and “piled-up appositive clauses” to create a palpable sense of immediacy which would give to his readers “the impression of verisimilitude” and thus demonstrate his veracity (p. 100). As the outcome of “contingent social and cultural practice,” credibility also necessitated those making truth claims to exhibit or to conform to certain behaviors or social expectations, whether that be the hermitic and reclusive scholar, the public and hospitable gentleman, or the abstemious philosopher. Credibility is, as Shapin makes clear, inherently a question of performance.

Shapin’s exploration of the spatially situated nature of science and of scientific practice in the context of the seventeenth-century domestic laboratory, is one study with which many historical geographers are likely to be familiar and with which they will sympathize. Shapin shows here how and why place mattered to the conduct of science and how certain spaces served to regulate the practice and practitioners of natural philosophy. The laboratory as a site of testing, experimentation, witnessing, warranting, conversation, hospitality, and dispute blurred the distinction between the public and the private. It was a space whose operation was regulated by gentlemanly decorum and thus was mapped onto the “contours of English society” (p. 62). As Shapin makes clear, however, the seeming synonymy of the scholar and the gentleman is not as clear-cut as it might appear. Throughout much of the early modern period the scholar and the gentleman were, socially speaking, at polar opposites: the former was understood to be sedentary, melancholy, and private, the latter characterized as active, civil, and public. Shapin offers an interesting account of the ways in which aspects of scholarly behavior and decorum were brought gradually into alignment with those of the gentleman, whilst, at the same time, learning and the pursuit of knowledge became desirable accomplishments for the social elite.

If the study of credibility provides this collection’s narrative coherence, it is dietetics—the perceived influence of diet and bodily regimen on health and intellectual productivity—which constitutes the empirical bulk on the book’s second half. Situated within a detailed and scholarly history of dietetics, Shapin makes the claim that there has been—from classical times—an assumed link between abstemiousness and moderation and truth and intellectual insight. Moreover, as he points out, “what was taken to be *good for you* occupied the same cultural terrain as was considered *good*” (p. 235). In large part, dietetics depended upon a humoral understanding of the

body which saw thought, emotion, and diet as elements of a reciprocally interacting causal systemâ (p. 253). A clear link could, therefore, be drawn between diet and cognition, food and the acquisition of knowledge—a relationship which Shapin explores fascinatingly through the dietary habits of Robert Hooke, Isaac Newton, and other scholars. This is a useful reminder that more remains to be done by historians of disciplinary geography on the culinary regimens of geographers.[2]

Shapinâs third substantial focus in this collection is the relationship between science and common sense and how quite it came to pass that âscientific knowledge was set in opposition to lay knowledgeâ (p. 287). This is a story, in large measure, of what counted—at any particular time and in any specific cultural milieu—as reliable and expert knowledge. Quite how hard that distinction can be to make is evident in the fact that scientific knowledge has, at turns, been placed in opposition to âvulgar knowledgeâ yet also described as ânothing but trained and organised common senseâ (pp. 315, 349). Shapin explores something of this tension through an examination of proverbs and their way of, like scientific theories, linking âthe general and the particularâ (p. 329). Through an attention to what he calls a âproverbial economyâ Shapin offers an engaging illustration of the ways in which knowledge about the world acquires authority.

Despite naturally lacking the coherence of a single-subject monograph, Shapinâs collection offers much detailed, scholarly, and compelling food for thought. It is

intelligently arranged and pleasurable to read, despite Shapinâs occasional tendency to âhit the nail on the head and then hit it on the head and then hit it on the head.â[3] Although there is material here with which many historical geographers will be familiar, there is much more that is likely to come as a surprise. For those interested in the means by which knowledge is attributed value, how ideas circulate, and how authority is invested in embodied practices, *Never Pure* is a useful and rewarding compilation. Readers curious and dedicated enough to wade through the bookâs almost 150 pages of endnotes will be rewarded with a delicious-sounding recipe for Shapinâs *FricassÃ©e de poulet Ã©pistémologique*—food, it seems, for the body as well as the mind (p. 489).

#### Notes

[1]. Steven Shapin, âPlacing the View from Nowhere: Historical and Sociological Problems in the Location of Science,â *Transactions of the Institute of British Geographers* 23 (1998): 5â12.

[2]. Innes M. Keighren, âBreakfasting with William Morris Davis: Everyday Episodes in the History of Geography,â in *Practising the Archive: Reflections on Methods and Practice in Historical Geography*, ed. Elizabeth A. Gagen, Hayden Lorimer, and Alex Vasudevan (London: Royal Geographical Society, 2007), 47â55.

[3]. Cyril Connolly, *Enemies of Promise* (Chicago: University of Chicago Press, 2008 [1948]), 54.

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