Shyndriayeva on Bud and Greenhalgh and James and Sciach, 'Being Modern: The Cultural Impact of Science in the Early Twentieth Century'

Review published on Wednesday, September 11, 2019


Reviewed by Galina Shyndriayeva (University of Tokyo) Published on H-Sci-Med-Tech (September, 2019) Commissioned by Dominic J. Berry (London School of Economics and Political Science)


Charles Percy Snow’s 1959 “two cultures” thesis, in which scientists (with the future in their bones) battled valiantly against staid literary men, remains a focal point for framing certain discussions in the historiography of twentieth-century British science, technology, and medicine. This edited collection by Robert Bud, Paul Greenhalgh, Frank James, and Morag Shiach, which grew out of a conference funded by the Arts and Humanities Research Council of the United Kingdom, is aimed at addressing this persistent dichotomy. It does so through a multidisciplinary interrogation of pursuits and interpretations of scientific knowledge in various spheres of early twentieth-century modernity, including fields such as the visual arts, literature, architecture, politics, and academic scientific research.

This extensive collection of seventeen cases features investigations based on a variety of methodologies from scholars of art, architecture, literature, media studies, political aesthetics, and history, focusing mostly on the British context with some extension into France, Switzerland, Germany, and Austria. As noted by the editors, studies of modernity in Britain are lacking as compared to other contexts. A central guiding tenet for this book was to rely on the actors’ own pronouncements and definitions of modernity, so foregrounding the diversity of experiences examined in this collection. Bud and Shiach, writing in the introduction, insist that “science” itself should not be taken as a given category but instead explored within the specificities of each case study and within the actors’ own articulation. The overall argumentative outcome of this collection is to show that scientific knowledge was important to conceptions and activities of early twentieth-century modernity in diverse ways that have been overlooked thanks to stark framings between “science and culture,” reflecting how C. P. Snow’s thesis “helped shape the current place where science finds itself in contemporary culture” (p. 389). The editors frame this collection as building on scholarship from literary studies, especially English literature, under the umbrella of a science and literature subfield, as well as cultural and media studies where the focus has been on defining the cultural importance of communications, growth of media, and means of transport, while also seeking to avoid a deterministic analysis or a framework of unidirectional impact.

The book is divided into four sections, “Science, Modernity and Culture,” “Tensions over Science,” “Mathematics and Physics,” and “Life, Biology and the Organicist Metaphor,” with an introduction...
and an epilogue. The four essays in the first section examine interrelationships between scientific understanding and the visual, performing, and literary arts. Mitchell G. Ash emphasizes the importance of scientific knowledge for shaping turn-of-the-century Viennese modernism and identifies competing forms of modernity in Ernst Mach’s, Ludwig Boltzmann’s, and Arnold Schoenberg’s ways of thinking. Tim Boon looks at how early approaches to using sound in cinema, in two films from the 1930s, relied on the concept of montage, and how these reflected concepts and anxieties of modernity, especially industrial modernity. Morag Shiach examines scientific concepts as metaphor in the literary works of Virginia Woolf, T. S. Eliot, and Dorothy Richardson and the extent to which these shaped conceptions of “modern” writing, while Kevin Brazil seeks to tease out the impetus and impact of Eliot’s pronouncement that “poetry is a science.”

The next section is wholly populated by historians of science, featuring essays analyzing competing conceptions of science in 1920s and 1930s Britain. Robert Bud analyzes the emergence and use of the term “applied science,” while Frank A. J. L. James investigates the history of the history of science in light of contemporaneous debates about the role of science in interwar Britain. Charlotte Sleigh uncovers contestations in the correspondence and homemade magazines of science fiction fans in terms of how they defined “science” and conceptualized the work of science fiction.

The five essays in the third section look at the pursuit and representations of mathematical sciences. Nina Engelhardt’s essay demonstrates how Robert Musil and Yevgeny Zamyatin explored tensions in development of mathematics at the turn of the century to write self-consciously modern literature. Lewis Pyenson examines the role of Felix Klein’s late nineteenth-century three-dimensional mathematical models in plaster. He contrasts them with the decline of casts, plaster mold reproductions of notable sculptures and structures used in nineteenth-century visual arts education but falling out of favor around the turn of the century (the history of the Cast Courts at the Victoria and Albert Museum in London provides a salient example of this trajectory). Pyenson suggests that Klein’s models served perhaps as an inspirational link with the sculptural goals of Pablo Picasso and Umberto Boccioni. Judi Loach uncovers the Swiss avant-garde interpretation of late nineteenth-century German psychophysics, which was foundational for Le Corbusier, years before it reached Parisian circles. One of the standout essays of this collection, by the late Jeff Hughes, brings out the importance of practical skills in wireless technologies and the social organization around this at Cambridge University in the 1920s and 1930s that was dedicated to constructing instruments in nuclear physics and bringing together interests from industry, government, and the military. Ruth Oldenziel examines the changing negotiations about when and where the bicycle was considered modern from the turn of the century to the 1930s.

The final section focuses on biological sciences and organicism. Michael Guida sees in recorded birdsong broadcast on the BBC from the 1930s through the Second World War a nationalist endeavor in constructing British identity, both by the recordist, a German refugee, and in its reception. Annebella Pollen investigates delineations of the “modern” especially in terms of interpretations of evolution in a British woodcraft campaign group, the Kibbo Kift Kindred, in the 1920s. Craig Gordon contrasts uses and definitions of organicism in the work of Alfred North Whitehead, Wyndham Lewis, and D. H. Lawrence and its importance in articulations of literary modernism. Esther Leslie interprets the metaphor of liquid crystals in German doctor and novelist Alfred Döblin’s 1933 work Unser Dasein (Our Existence) and his use of this metaphor to meditate on concepts of life as mechanical or organicist. The final essay, by Tim Benton, returns to Le Corbusier and conceptualizes...
the architect’s theoretical tensions as between messy nature and organized, geometric Nature in a “rejection of the machine.”

The essays are well researched and one of the strengths of this collections is that it provides a wide-ranging view of engagement with, and interpretations of, scientific knowledge. This range testifies to the editors’ sensitivity toward the growing literature in this area, which has moved beyond taking academic physics—particularly relativity—as providing the archetypal scientific concepts of modernity. Essays focusing on similar groups of actors speak to each other well and can be useful in teaching. On the other hand, the constituent essays succeed to varying degrees in the goals stated by Bud and Shiach in the introduction. For historians of science, it may seem as if some categories, such as science, technology, and nature, are implicitly taken as given by many of the authors. Furthermore, many of the essays focus on conceptual concerns, such as representations and metaphors drawn from or for scientific knowledge. But this does not exhaust the ways of being modern; engagement with questions of the material and materiality in modernity could have helped expand our view further. Only the essays by Oldenziel and Hughes touch on this angle. I would have liked to see inclusion of more material or even industrial activities as part of the culture of modernity. Overall, this book contributes an interesting and diverse collection of specific cases that will be a resource for scholars of modernity in multiple disciplines. It is freely available online in its entirety on the UCL Press website, a boon for accessibility that promises to be especially useful for students.


This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 United States License](http://creativecommons.org/licenses/by-nc-nd/3.0/us/).