Vera Keller. *Knowledge and the Public Interest, 1575-1725*. Cambridge University Press 2015. 350 pp. $105.00 USD (Hardcover ISBN 9781107110137); $34.99 USD (Paperback ISBN 9781107526013).

In this erudite and imaginative book, Keller presents a richly contextualized history of wish lists—*desiderata*—at the confluence of scientific, economic, and political developments in the seventeenth century. If wish lists seem like a peculiar case study for reassessing the period most often identified with the Scientific Revolution, it is because they now 'stand at the root of an idea that has become a truism: that the advancement of knowledge serves the public interest' (4). The book opens with a detailed introductory chapter (Part I) that sets up the much-needed background for understanding Keller's aims and approach in historicizing, contextualizing, and problematizing this typically overlooked set of texts. The spirit of seventeenth-century *desiderata* informs our ever-growing, increasingly professionalized, academic research agendas. At the same time, like many other early modern inventions and sensibilities, the wish list is also still part of our public culture, albeit in a regrettably diminished form. With the advent of the Internet and the widespread use of social media, these once culturally and socially controversial manifestos have assumed a much more modest epistemic role. The assortment of online wish lists, including watch and playlists, provide us with convenient ways to collect and publicize our desires for various commodities. Unlike the visionary desire catalogs of Bacon, Bornitz, and Leibniz, our wish lists are designed to initiate not intellectual but shopping expeditions. This is not a mere reflection of naïve nostalgia for a pre-capitalistic past. A study of current digital and virtually shareable lists will no doubt shed important light on our own (post-) modern culture, and thus remains a strong *desideratum*. The wish lists dominating Keller's narrative, by contrast, uncover 'old concerns, fears, desires, conceptions of the present, and ideas about the future'—attesting to new as well as lost forms of knowledge, utopian hopes, and the mysteries of collective wishing—once prevalent in early modern European society and governance. (3)

A cursory glance at the first few pages of the book coveys a clear sense of the historical-cultural importance Keller ascribes to these lists. They '*established* a new intellectual economy relating to the public'; '*reconceptualized* learning in the form of shared desires'; and 'helped *reformulate* what could count as scholarly work' (4; emphasis added). Keller examines various early modern collaborative wish lists to profoundly question and reinterpret our understanding of the relations between the rise of modern science and modern political and economic thought: 'two new early modern forms of probabilistic reasoning – the reason of state and experimental reasoning – arose simultaneously, yet they are rarely studied in concert' (11). While the subject, in its chronological embrace and historical complexity, presents a challenging undertaking, the result is impressive.

In Part II, Keller locates the 'Origins' of her story in late sixteenth-century transformations through which reason, previously seen as universal and immutable, became 'reconceptualized as interest' (37). With the demise of old epistemic and social orders, like the great chain of being and the two-sphere cosmos, interest became the new glue that could hold together society and human plans for knowledge. The Italian thinker Giovanni Botero explored such themes in his influential *On The Reason of State* of 1589, associating collective human interests and passions with the enhancement of the body politic. Thus 'reasonable came to mean … not that which is universally true from beyond a human perspective, but that which might best serve and mediate within an aggregate of private interests' (38). This dynamic, interest-based, rationality spurred new visions of innovation and progress. In this context, Keller dissects Guido Pancirolli's *Two Books of Things Lost and Things Found* (1599/1602) in illuminating detail. Despite his inescapable longing for antiquity, 'Pancirolli's

catalog would provide a widely used list of both lost and new inventions. Across Europe, those debating the relative advantages of modernity and antiquity drew on Pancirolli's lists' (61). As one might expect, these processes—which Keller identifies as the instrumentalization of human passions, interests, and collective desires—encountered fierce criticism. These tensions are illustrated in a rereading of the murky affair surrounding the Rosicrucian manifestos. Inspired more by revisionist cultural-economic historical scholarship, like Anne Goldgar's *Tulipmania* (2007), than by Frances Yates's classical *Rosicrucian Enlightenment* (1972), Keller offers penetrating insights into an early modern 'widespread discussion of changing social mores associated with the marketplace' (92). The path to unpacking this 'international debate' directs her plotline from Italy to the German-speaking parts of Europe, and then to England. (92)

In Part III, 'Inventing the Wish List,' we find not only Francis Bacon, perhaps the thinker most commonly associated with the genre, but also the less-known itinerant scholar Jakob Bornitz, whose ways of relating 'method and matter theory to politics suggests interesting period relationships between the category of early modern science (*scientia*) and political utility' (99). Keller deftly reconstructs Bornitz's landscape of philosophical, artisanal, and political ideas, with emphasis on his 1625 *On a Sufficiency of Things in a Republic*. Inspired by Botero, Pancirolli, and others, this wish-list author 'delighted in and experimented with lists as techniques for collecting, analyzing, and manipulating reality … to Bornitz and his contemporaries, lists were ways of breaking away from received models of political writing and basing new theories on things, not words, while simultaneously slotting new political reasoning into a system' (123). Keller's sensitive treatment of Bacon's list of *desiderata*, found at the end of the 1623 Latin edition of his *Of the Advancement of Learning* (1605), is sophisticated and evocative. Among many useful observations, Keller reminds us that 'despite Bacon's current popular fame as the inventor of the scientific method, the new logic [his *novum organum*] remained on his *desiderata* list' (165). The discussion ends with the strategic deployments, mobilizations, and revisions of extant wish lists by Samuel Hartlib, members of his Circle, as well as more distant correspondents. 'Learning from Bacon, Samuel Hartlib and his correspondents deployed political techniques and human desires in order to advance learning and reform society. Despite voices opposing the orientation of philosophy toward human affairs, a flood of wish lists filled Hartlib's papers' (214). Here too we find a mixed cast of characters, from the relatively familiar Jan Comenius, John Dury, John Wilkins, and William Petty, to the more obscure Joachim Hübner, Johann Heinrich Bisterfeld, Jean de Silhon, and Francis Bampfield, all of whom vigorously debated the relations between knowledge, utility, religion, and the public arena during and around the decades of the English Interregnum.

Keller begins the fourth and final Part, 'Institutionalizing Desire,' by examining the first full-fledged institutional use of wish lists at the Royal Society of London (est. 1660). The Society's founders 'continued to maintain the views developed during the Interregnum linking the advancement of epistemic empire with the public interest. In deploying *desiderata*, they continued to demonstrate how the advancement of knowledge served the public interest' (215). As we learn about the socio-epistemic reformative ambitions of the early Fellows of the Society, Bacon's programs and ideas loom naturally large. These attempts are effectively situated against the backdrop of their proximate institutional political struggles and successes, alongside broader cultural currents. Following the subject into the close of the long seventeenth century, Keller's quest finally takes her back to central Europe, to the young Gottfried W. Leibniz and his 1667 wish list, and to the more influential one published in 1676 by the Augsburg physician Georg Hieronymus Welsch. The story ends with a chapter titled 'Wish Lists Enter the Academy.' Wish lists originated outside academia and often challenged conventional academic forms of expression and reasoning. The author of numerous early

eighteenth-century tracts that prominently featured *desiderata*, and an early advocate of *oeconomia* as a new academic discipline, Johann Hermann Fürstenau 'was the first to incorporate *desiderata* within the central academic genre of the disputation or dissertation' (304).

Knowledge and the Public Interest is an important and thought-provoking book. It is a work of high scholarly order. Drawing on an exceptional range of meticulously researched primary and secondary sources, Keller tells a discerning tale about the relationship between the rise of modern science, the modern state, and the public use of knowledge. The narrative, although at times dense, is compelling. The lack of a general bibliography at the end is lamentable, though likely has to do more with the publisher than the author. This book should be of interest to scholars of early modern European society and culture, historians of science, and to those interested in political and economic history. Don't just add it to your Amazon Wish List, make it a genuine and concrete *desideratum* to read it.

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