Rebecca Cypess

Curious & Modern Inventions. Instrumental Music as Discovery in Galileo’s Italy,
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72 line drawings, 4 tables, isbn: 9780226319445

A decade ago historian of science Peter Dear wrote a short introductory book on the “intelligibility of nature,” in which he discusses how science over the past 400 years was able to make sense of the world. His conclusion is that modern science “was born a hybrid of two formerly distinct endeavors” (p. 11) – i.e. natural philosophy and instrumentality. Dear explains that science, as a practical human enterprise,

has grown up over the past few centuries by developing an intimate relationship between, not two opposed philosophies, but two distinct practical endeavors: natural philosophy, the goal of which is to make sense of the world, and instrumentality, which aims at creating means of material control. The history of science is in large part the story of how those two, while never quite acknowledging the fact, have interwoven and accommodated themselves to each other.

Dear, Intelligibility of Nature, Chicago, 2006, p. 191

Rebecca Cypess's Curious & Modern Inventions is a study in the history of music that fits quite nicely within the above definition. Cypess’s ambition is to determine in what ways “music composed for and made with instruments have reflected and contributed to the culture of invention, exploration, and discovery that characterized the early modern era.” (p. 8) The book is framed around a concept Cypess identifies as the “paradox of instrumentality”, i.e. a musical instrument “represents ephemeral emotions, change in moti from one instant to the next – but it does so through a miraculously small and unassuming physical apparatus [such as the violin].” (p. 32) The listeners’ changing affetti aroused by instrumental music thus derive from a combination of a musical instrument and the dispositione di mano or habitus of the artisan [player] who masters it. Historians of science, including H. Floris Cohen, Stillman Drake, Penelope Gouk, and Peter Pesic have emphasized over the last few decades the role of music to the development of early modern science. Cypess builds the book’s methodological argument not only around these rich contributions, but more generally on the literature of scientific practices, which involves artisanal knowledge, instrumentation, and theoretical affirmation in print.

The phrase curiose e moderne inventioni, one of the starting points of Cypess’s investigation, comes from a book published in 1626 by violinist and
composer Biagio Marini on sonatas, symphonies, madrigals, songs and other such fashionable music conceivably played *per ogni sorte d’instrumenti*. To explain how “instrumental music might have acted as an ‘invention’” (p. 9) Cypess investigates in turn how the *affetti musicali*, created by live performances, stimulated civil conversations (chap. 2). In print form, the same musical repertoire became a repository for the memories of these civil conversations with friends, not unlike what portraiture was meant to do in early modern Europe (chap. 3). The virtuosic instrumental techniques of imitating other instruments and animals is seen in the context of the increasing prominence of *studioli* and cabinet of curiosities, arguing that such sonic animations were exhibited to explore the boundary of art and nature (chap. 4). The study of the underlying aesthetic principles of the *toccata* serves as a focal point to examine other concerns in early modern Europe, such as the individual experience of time and timekeeping and the negotiation of time in Counter-Reformation theology (chap. 5). Lastly, Cypess juxtaposes the *stile moderno* of instrumental music with the *ars historica*, the former being understood as a manifestation of the latter (chap. 6).

This succession of chapters resonates with current scholarship in history of science. When one reads that “instrumental artisans – performers with an impressive *dispositione di mano* – may have been entertaining because of their virtuosity and creativity, but their musical illiteracy rendered their inventions fleeting and ultimately useless” (p. 189) it becomes clear that musical practitioners were no different than, e.g., mathematical practitioners. It is especially relevant to notice that music composers insisted to have their *inventioni* printed so that it would serve to enhance their status, “advertising their erudition and ‘curiosity’ to a wider audience. The printed scores enabled the dissemination of the composers’ musical collections and the knowledge they sought to produce.” (p. 158). This is akin to the *usus et fabrica* tradition in mathematical instrument books, which was carefully studied by Mario Biagioli and Jim Bennett among others. Cypess clearly spells out what she perceives as one and the same instrumental tradition between music and the sciences. She writes: “the instrumental *stile moderno* itself constituted a kind of experimental approach to music. Composer-performers relied on their *habitus* at the instrument to shape the structures and sounds of the new music, and musical instrumentalists took their place alongside instrumentalists in the visual arts, horology, optics, natural philosophy, and the study of history itself in the development of knowledge.” (p. 221) Although some musical concepts might be more difficult to grasp for readers unfamiliar with the history of music scholarship, the book’s overall theme is a familiar one to early modern historians of science.