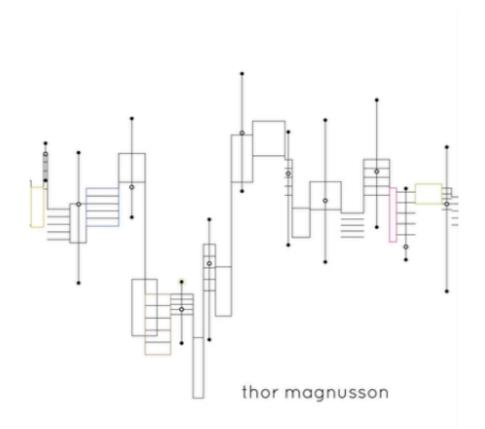
Book Review

Sonic Writing: technologies of material, symbolic & signal inscriptions

Review by Dr. Diana Chester



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In his book, Sonic Writing: technologies of material, symbolic & signal inscriptions, Thor Magnusson makes an argument for the role technological innovation has played in driving the evolution of our theoretical, epistemological, and hermeneutic frameworks about music. There are at least three fundamental reasons this book is an important read for musicians, sound studies scholars, and those interested in digital and electronic composition, sonic writing and notational practices. The first, Magnusson's writing style, while dense, is extraordinarily informative as he culls together more historical musical and notational references in one place than I have read before. He deeply explores these references providing salient examples and connections of the relationships between them, guiding the reader through 15 centuries of musical thinking. Secondly, the historical analysis of the genesis of music highlights intersections across other disciplines, including philosophy, poetry, science, and engineering. These connections provide an important space for the discussion of sonic writing and musical compositional practices as critically connected to other measurement based, creative, and expressive disciplines over time. Lastly, Magnusson creates a bridge for the reader to consider contemporary 20th and 21st century digital and electronic musical instruments, notation and compositional thinking as it is situated within these historical musical epistemologies. His theoretical orientation toward digital music technologies, and their role in society today, can be summed up as an analysis of how humans shape the development of digital and electronic instruments, and how these instruments in turn contribute to the shaping of society.

Prior to reading Magnusson's book, the bulk of my thinking about contemporary musical composition, particularly for digital and electronic instruments, and even modern-day sonic writing and graphic scores, was relegated to an historical analysis of roughly the last 100 years. In this work Magnusson takes the reader on a deep historical dive, through which he foregrounds the book's main arguments in historical benchmarks chronicling the evolution of musical epistemologies. This journey begins in the Medieval times, where we learn that "the primary function of music, as recommended by Plato, was to preserve music as cultural memory" (Magnusson p. 81) then to the 7th century where Magnusson cites the writings of Isidore of Seville, to explain the central role music played in the sciences, and on to the 9th century when music moved from a strictly oral tradition to one

that could be notated. The origins of musical notation are traced back to when monks used neumes, symbols placed over text, "to indicate articulations or inflections of notes," as memory aids for learning to sing the psalms. (Magnusson, p. 76)

One of Magnusson's central arguments is that technological developments have consistently transformed the direction of music creation, practice, and thought. He forms this argument by first giving a description of compositional techniques in the Baroque period, which were highly collaborative processes of co-creation where the musician's styles, decisions and musical inclinations were meant to shape a composition. He then moves on to the invention of moveable type in China in the 11th century, and the Gutenberg press in the mid 15th century, and how both technological innovations played a role in the dissemination and consumption of music. Composer's now thought of their work as a product.

It is clear that throughout his book Magnusson assumes a technological deterministic perspective. This is surprising given that the book writes from an historical perspective that goes beyond the Western world. Walter Benjamin in his famous 1935 essay, 'The Work of Art in the Age of Mechanical Reproduction' argues that a mechanical reproduction of a work of art lacks its presence in time and space, and that the social value of a work of art changes as a society changes their value system. "As with Benjamin's pioneering understanding of film in the 1930s, the present era of digitisation constitutes a delicate conundrum where radical, potentially disruptive technologies seem to exacerbate some interesting changes and discontinuities in our relations to media materiality." (Andersson, p. 61) Benjamin writes that it is not technological innovation that drives change in society, as Magnusson argues, but rather that society socializes technological tools, and ascribes meaning to them.

The issue of technological determinism is a central one. My own interpretation of this issue is one that is primarily influenced by the growing field of science and technology studies (STS) in general, and those theories that problematize post humanist theories that assign too much agency to technology. Timothy Dean Taylor, who also writes about music

with reference to STS and technological determinism, points out that 'one of the ways technology works in Western culture is to call attention to itself when new' but that after a

period of use, 'most technological artefacts are normalized into everyday life and no longer seen as "technological" at all, while whatever is new becomes viewed as "technological" (Taylor: p. 6). This analysis of technology is missing from Magnusson's argument, which I feel would be strengthened with its inclusion and a discussion of how his key arguments intersect with technological determinism and media materiality.

Mid way through the book, Magnusson takes us to the 20th century, a time where machines have become central instruments in musical expression and creation, and the development of recording technology creates a shift in the role humans play in music making. Here he makes two arguments of importance, the first is that the ability to record shifted our perception of music from something dynamic to something that is a fixed product. The second, that the advent of machines that could read and play music lead to a creative ideological movement against the rigidity of standard musical notation. This also led to new experiments in notation, which added syntax for new compositional techniques of instrument machine expression. Inspired by the visual arts, graphic notation practices emerged at a time when composers often had what Magnusson calls "extramusical backgrounds", which were cross creative practices in fields such as engineering, architecture, and design. These were woven into new modes of graphical composition. In this way Magnusson argues that music became an expressive art form. He makes a clear correlation between the perceived rigidity in traditional musical notation and the rise of musicians and composers who worked with machines and technology.

Another core argument of his book is that instruments of measurement generate new information about the world around us, however, this subject seems rather underdeveloped in the book. He states that these technologies are developed based on our understanding of the domain being measured. He argues, and history of course supports this assertion, that we don't always know what is there to be captured. However, he doesn't explain the nuances of how these new forms of data collection led to new ways of knowledge making. He does however say that when we capture data outside of what

we intend to capture, we must develop new systems of understanding in order to analyze the data. Magnusson's description of this area feels central to his argument, yet his

description falls short of conveying the complexity of this transformation of musical expression.

Finally, Magnusson argues that the digital has redefined musical practices and understanding, as well as contributed to the existence of new forms of musical work. He explores and problematizes these digital innovations as they do not conform to traditional musical paradigms, and therefore do not lend themselves to traditional musical analysis. These technological innovations include tools of recording, visual and audiovisual music, machine listening, new notations, and machine writing. Again, this argument while interesting, could benefit from deeper analysis and exploration.

This book is an excellent read, and Magnusson clearly articulates his arguments within an historical methodological framework, acknowledging the philosophical and epistemological arguments of the eras he represents as well as their changing landscape. He speaks of key trends and dynamics that impacted our understanding of the role and value of music, composition, performance, and notation historically, as well as the technological innovations that impacted the growth and changes of musical thought and expression. This book is an important addition for scholars examining the role of technological mediation on musical and sonic thinking, and composition. Additionally, this is a must read for those of us interested in thinking about complex philosophical questions that emerge from the evolving landscape of tools designed for digital and electronic musical instruments and composition, and the ways these tools impact our understanding of music.

References

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Bio

Diana Chester is a media artist, educator, and scholar. Her work's organizing principle is focused on human response to the complexities of culture. Her work draws from sound studies, archival studies, and the ethnographic study of expressive culture in religious festival and tradition. She is currently finishing her first book, which looks at sonic encounters with the Islamic call to Prayer. Diana is a Lecturer in Media and Communication n at the University of Sydney.

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