

Music as *HandWerk*, the middle way between *Vorhandenheit* and *Zuhandenheit*

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ABSTRACT:

To understand the full significance of computer music's instrumentality, I propose to extend Heidegger's reflection on technology to a broader complex of concepts that Michel Foucault defined. This reflection leads to a perspective that highlights issues of somaticity and performative textuality in computer music. It also helps underscore a new understanding of subjectivity, a new way of being-in-the-world. In this context, music's creative movement can be seen as flowing through negotiation with discourses' formalism and exertion of our practices, to emerge in a thought, a *Handwerk*, embodied in our actions.

INTRODUCTION:

Over the past fifty years, electronic and computing technologies have been used as a tool for sound analysis and synthesis, as an aid in the manipulation of musical constructs or as a direct agent in compositional decisions. This evolution in the process of music production and reproduction clearly differentiated computer music from music that used traditional acoustic instruments. Indeed, in contrast to the traditional instrumentality of music which implicitly embodies the physical constraints of performance and the limitations of music theories, the instrumentality of computer music often focuses on the minute details of a performative programming language. Such language provides a formal, unconstrained and explicit means to control the process of music making. But the difference between traditional and computer music instrumentality may go beyond a simple difference in degree of constraint to a difference in kind. The processes involved in computer music composition may in fact radically change our relationship to music making, thus our relationship to the world.

To better understand the implication of computer music's instrumentality, I propose to closely read Heidegger's reflection on worldliness and technology and outline the implications of this reading by pointing to later analyses proposed by Michel Foucault which broaden them.

HEIDEGGER AND TECHNOLOGY:

In *Being and Time (Sein Und Zeit)* (1996/1927), Heidegger's primary concern was the question of being which he specifically framed as the question of being-in-the-world, an inquiry that presupposes

an understanding of worldliness. Worldliness, Heidegger states, is the background against which one lives. It can be the "public" world or one's "own" world (61/65). With this understanding, Heidegger emphasizes the importance of practices in the understanding of being, practices which necessarily relate to things in the world. However, he identifies two ways in which this relationship is manifested: *Vor(hand)enheit* which reflects the detached objective perspective of the sciences and *Zu(hand)enheit* which refers to the "handiness" of practical knowledge which always already remains in the background of our understanding of the world. He uses this dichotomy to criticize the Cartesian view of the world strictly divided between the *res extensa* of things and the *res cogitans* of thoughts a division which fosters the subject/object separation. He argues that *Vorhandenheit*, which spells out the relationship where the subject "hands" the object before (*Vor*) itself, forgets the background presupposed by the *Zuhandenheit* where subject and object are merged as one. This privileging of the subject, he concludes, leads to a dangerously incomplete understanding of being.

The criticism of the subject/object relationship is a dominant theme in Heidegger's philosophy, one which he denounces because it is limited to representation (*Vor-stellung*). Throughout his work, Heidegger highlights the prevalence of this relationship in our understanding of the world. For instance, he states that our conception of aesthetics "from the very start turns the art work into an object for our feelings and ideas" (1971: 43). He also argues that we understand technology as "an autonomous transformation of praxis, a type of transformation wherein praxis first demands the employment of mathematical physical sciences" (1977: 116). However, in *the Question Concerning Technology* (1977) he

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extends this criticism by radicalizing it. He defines the essence of technology as en-framing [Ge-Stell], an attitude that transforms objects into standing-reserves or resources and which seeks to order the world by recovering and integrating all perceived anomalies. He therefore suggests that en-framing disposes of the very notion of object when everything (electricity, airplanes, bits & bytes) acquires a variety of unsettled representations. He also claims that the attitude of en-framing, which manipulates these representations, is a threat, an "extreme danger" (33), manifested in the foreclosure of possibilities for change. In this view, a subject/system relationship formalized in a calculus of closure replaces the subject/object relationship. This perspective on technology has often been associated with the use of computer in music. Foreclosure poses clear and real danger for music and society as it potentially and gently suppresses the Critique, a process by which new worlds are constantly disclosed (Spinoza & al., 1997).

Heidegger concludes that in order to deflect en-framing one should return to the epochal practices developed by the Greeks (Plato's *poiesis*, or Aristotle's *techne*) or await the advent of new Gods. He also adds that an "essential reflection upon technology and decisive confrontation with it must happen in a realm that is, on the one hand, akin to the essence of technology and, on the other, fundamentally different from it" (1977: 35). This challenge bears direct implications in our dealing with computer music.

FOUCAULT AND TECHNOLOGIES:

To complete this analysis and understand its full implication, however, we need to go beyond Heidegger and consider a perspective that permits a broader understanding of technology. Michel Foucault's later works provide such a framework. Indeed, Foucault's "objective... has been to sketch out the history of the different ways ... that humans develop knowledge about themselves" and further analyze these specific techniques or "technologies" that "humans use to understand themselves" (1988: 18). This perspective is congruent with Heidegger's as it emphasizes the existence of two separate modalities of manifestation in the world: discourses, which often serves as a foundation for the sciences (1970) and practices which, like the panopticon (1977), implicitly and visibly reify the ways humans understand themselves. Foucault's analysis of Biopower parallels Heidegger's analysis of technology and raises similar concerns of foreclosure and domination (See also Dreyfus, 1992).

Foucault's vision, however, appears broader than Heidegger's since it includes technologies of the sign, of power and of the Self in addition to the more traditional technology of production which Heidegger addresses in the *Question Concerning Technology*. This difference underscores how Foucault departs from Heidegger by focusing on the social and the political rather than strictly on things (Dreyfus, 1992). This shift further informs Foucault's understanding of technologies as located at the nexus of power/knowledge which grounds discourses and practices. Indeed, technologies, which participate in the exercise of power, result from forms of knowledge derived from discourses and practices, which are themselves directly informed by the very diagrams of power. As with en-framing, the circularity that power and knowledge imposes on our understanding of the world dissolves the subject/object relation.

Foucault, however, also indicates how a new subjectivity can emerge from the power/knowledge nexus. By defining power as "the multiplicity of force relations immanent in the sphere in which they operate" (1980: 92) he implicitly offers a way to break the frame, as it were, through the disrupting intrusion of a "thought from outside". Foucault identifies the emergence of such an "outside" in an early text on Blanchot (1987). He defines its full strategic import, however, in *The Use of Pleasure* when he spells out the need to "look for the forms and modalities of the relation of the self by which the individual constitute and recognize himself *qua* subject" (1985: 6). This suggests that the technologies of the Self as well as other technologies have the potential to spawn vectors of forces orthogonal to the matrix of power and capable of disrupting it, which thereby radically reconfigure our relation to the world. Here, the subject emerges out of the space of Critique (1997) by inventing and forcing new relations of power.

TECHNOLOGIES OF COMPUTER MUSIC:

Foucault's notions of discourse, visibility and subjectivity translate well in the analysis of music's instrumentality as introduced above. Discourses can refer to various formal theories of music, psychology, signal processing and stochastic processes that serve as a reference grid to composers, performers and listeners. Visibility can refer to the practices to which bodies have been habituated in playing and listening. The axis of subjectivity is "the middle way", the place of emergence, of creation, of forcing. It is a place where negotiations with the formal and exertions of practices occur through a thought embodied in our actions. This thought, Foucault reminds us, is neither "simple know-how nor pure theory [but

that-which] provide(s) the force which break the rules in the act of playing them." (1982: 222). This thought is manifested, every time an improviser departs from strict musical implications and counteracts the mechanical reflex of simple gestural repetition or when a composer challenges prevalent aesthetics and current performance practices to deploy radical new ways of listening. The creative thought is akin to Heidegger's *Handwerk* (1968).

Computer music can distort this creative thought by solely focus on the discursive, the formality of mathematical models; instrumental music can betray it by focusing on habituated practices in a sort of pure body mechanism. The dimension of subjectivity, how we constitute ourselves as "musical subjects", is therefore a necessary component of music making and deserves proper philosophical consideration. Accounting for subjectivity in music sets the stage for the "decisive confrontation" with technology that Heidegger called for. It also calls for a renewed understanding of creative engagement, a new way of being-in-the-world, for composers, for performers and for listeners.

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