Cover Page

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SUMMARY

In this book I have investigated the cognitive idiosyncrasies of electronic music through a tripartite methodology involving artistic practice, cognitive experimentation and theoretical discourse. In doing so, I have attempted to address questions as to how we experience electronic music, how it operates on perceptual, cognitive and affective levels, which common concepts are activated in the listener's mind, and why and how these concepts are activated. I argued that our experience of electronic music is guided by a cognitive continuum rooted in our everyday experiences, and that this continuum spans from abstract to representational based on the relationship of gestures in electronic music to events in the environment.

In Chapter 1, I established an artistic framework for the current study. First, I offered a historical overview of electronic music, focusing on the formations of pioneering styles and thought movements. In conjunction with an ensuing nomenclature analysis, this overview served to delineate the stylistic scope of the current discussion. In the following section, I provided a compositional report on the artistic practice carried out during the course of my research. This report included information regarding materials, composition techniques, narrative structures and program notes of the eight pieces which were referenced as case studies throughout the book. This report was aimed at revealing both my artistic intents and the studies conducted to materialize these intents in the form of electronic music pieces. Furthermore, by exposing the technical and aesthetic links between these pieces, I highlighted the poietic dimensions that would be subjected to scrutiny in the following chapters.

In Chapter 2, I offered an in-depth account of the experiments conducted as part of my research. Starting from the scientific trends of the 1950s, which set a historical precedent to such studies, I provided an overview of analytical and experimental approaches to electronic music. Next, I explained the motivations behind my experimental design by addressing the shortcomings of comparable approaches and particularizing areas of focus which were instrumental in technical decisions. After an overview of preliminary studies, I presented an extensive report on the aims, stimuli and the applied sequence of the experiment. In the next section, I enumerated statistical information on the results of the experiment which was followed by an analysis of the data. The analysis methods I detailed here included data visualization, comparative analyses, categorization of the descriptors, correspondence analysis and discourse analysis. Interpretations of these analyses were offered throughout the book.

In Chapter 3, I set out to specify the cognitive foundations of electronic music. To establish a frame of reference for my discourse, I first delved into a discussion of evolutionary and cultural determinants of musical behavior in humans. By offering empirical evidence from a breadth of music cognition studies, I established grounds for evaluating the material and the language of instrumental music. Moreover, I offered an overview of the semantic and affective processes involved in music appreciation. In the following section, I first demarcated the compositional characteristics of electronic music: in combination with ontological

perspectives and practical explications, I expanded upon the historical progression of the style. In doing so, I emphasized the primacy of the listening experience in the formation of a modern composition practice and the role of a strong union between technology and the composer in establishing this understanding.

Further in this section, I introduced an adaptation of the musicologist Jean-Jacques Nattiez's model of musical semiosis, which is structured around the acts of poiesis and esthesis. My intention in doing so was to liberate the act of listening from a communicational hierarchy between the artist and the audience, and to place the emphasis on the complexity of listening instead. Furthermore, I identified the particular cognitive tendencies at play during this act of listening. The material introduced into music by aid of the electronic medium, and the language this material motivates, was evaluated with respect to these cognitive tendencies in a discussion supported by scientific research. Finally, relying on the evidence gathered from the experiments conducted as part of this study, I described an amalgamation of musical languages which grants the electronic music composer a cognitive continuum from abstract to representational.

In Chapter 4, building upon the cognitive idiosyncrasies of electronic music, I constructed a semantic network across events in our daily environments, our perception of the sounds these events produce, and the gestures in electronic music. By describing the convergent aspects between models of experience originating from various fields of study such as perception, neuropsychology and semiology, I situated the role of our cognitive faculties in our experience of electronic music. Later, I provided a variety of existing perspectives on musical gesture which involved both embodied and metaphorical interpretations of the concept. From there, I formulated a definition of gestures in electronic music, intrinsically informed by the preceding discussion on environmental sounds. A gesture in electronic music was thus characterized as communicating meaning, serving a unitary function, revealing causalities, operating at various time scales, coexisting with other gestures and implying intentionality. Each item of this definition was motivated with excerpts from listener reports. As I developed this model around a tight-knit web of interdisciplinary knowledge, I revealed further insights into the dynamics of the communication between the electronic music composer and the listener.

In Chapter 5, I contextualized the concept of diegesis in the experience of electronic music with the aim of addressing the embodied and semantic dimensions of this experience. By referring to various interpretations of diegesis developed in pertinence to various art forms, I traced out a coalescence of mimetic and diegetic modes which comes to being while we listen to electronic music. A following discussion of narrativity in electronic music, helped me further relate the gesture/event model to the narratological scrutiny in this chapter. In the following section, I combined data from the experiments with empirical studies from a variety of fields to specify practical implications of the theoretical discourse from the previous sections. In an extensive discussion of the semantic and physical domains, I offered various excerpts from the experiential spectrum of electronic music. By addressing the characteristics of these domains in the form of compositional strategies, I further united the esthesic report from the listening experiments with poietic practice.