

Ioannis Zannos (ed.), *Music and Signs: Semiotic and Cognitive Studies in Music*

Bratislava: ASCO Art & Science, 1999.

ISBN 80-88829-15-4, 528pp., ill.

This collection of papers was first presented at the Fifth International Symposium on Systematic and Comparative Musicology, which took place at the Federal Institute for Music Research, Berlin, from 10 to 14 September 1997. Divided into seven sections, the collection comprises thirty papers from a variety of academic authors. Most papers are in English, but a section on 'Notation' includes two papers in German, and a 'Semiotics and Sonic Structure in 20th-Century Music' section includes three papers in French and one in German.

Although the Symposium is a regular event, the editor notes in the preface that this conference had a particular character that was partly circumstantial, but equally deliberate in the sense that it included perspectives from the domain of musical hermeneutics, and viewpoints representing the human science approach to musical studies. Zannos goes on to state that the challenge of the conference was to test whether semiotics could stand up to its self-professed claim of functioning as a link between the human sciences and empirical natural sciences.

Many authors in the text touch on the semiotic aspects of music, with cognitive perspectives appearing less frequently. Not all papers address the central themes of the conference directly or by implication, and some could equally belong to other collections. The editor acknowledges in the short preface that the result of the call for papers was an almost bewildering diversity of topics. However, he points out that there are certain common directions in this diversity, and that there are signs of an emerging *rapprochement* between traditional disciplines and that of the younger discipline of cognitive musicology. What these common directions are, or what the *rapprochement* amounts to, is left up to the reader to discern.

A first section on 'Perception and Cognition' directly addresses the conference main themes. It begins with Marc Leman's 'Naturalistic Approaches to Musical Semiotics and the Study of Causal Musical Signification.' This eloquent survey attempts a tentative reconstruction of the tradition underpinning causal musical signification in relation to semiotics, and provides a framework by which aspects of this can be studied. Other essays in the section include 'The Musical Sign between Sound and Meaning' by Mark Reybrouck that suggests an operational approach for defining music signs based on the conceptual framework of semiotics. Following is 'Music Seen as a Game Using Cognitive Abilities of Language' by Jobst Fricke; 'Music And Cognition: An Application of Nelson Goodman's Theory of Symbols to Music' by Simone Mahrenholz; and 'Cross-Modality and Conceptual Shapes and Spaces in Music Theory' by Rolf Godoy, who argues for examining musical sounds through the metaphor of shapes toward developing a holistic approach to musical sounds. The early papers generally support the editor's thesis of *rapprochement* between traditional and emerging analytical approaches.

Among the papers in the 'Notation' section is Oskar Elscheck's 'Die Beziehung zwischen Klang und Graphischer Notation: Ihr Symbolischer und Semantischer Hintergrund,' which argues for an interdisciplinary approach to symbolic sign levels of music. In 'Zeichensysteme als Darstellungsformen Musikalischer Strukturen und als Hilfsmittel bei der Musikakalyse,'

Alica Elschekova explores the convergence of musical sign systems and structural analytical systems to allow a deeper level of understanding of both areas. The remaining essays in the section are by Richard Rarncutt, and a co-authored paper by Shin-Ichi Sakata, Mari Tsurumi and the editor Iannis Zannos. These concentrate on the limitations of notation and the relationship between playing and notation associated with specific instruments.

Performance has its own section beginning with Andrainik Tangian's 'Towards a Theory for the Interpretation and Performance of Music Texts,' which proposes an interpretation theory for the translation of a symbolic score into musical performance. Johan Sundberg's 'Cognitive Aspects of Music Performance' illustrates how musicians' deviations from the score in a performance assist in the mental processing of sound sequences during music listening, and contribute to the cognitive foundations of musical semiotics. Joachim Stange-Elbe in 'Computer Assisted Music Analysis and Performance, A Case Study Using RUBATO' describes a method for the automatic generation of music performances from scores encoded in MIDI. In 'Harmonic Analysis and the Feel of Performance,' Anje Fleischer discusses experimental research on the relationship between the theoretical analysis of a piece of music and its performance using the RUBATO software system.

The section on 'Tonality and Theory of Hamony' begins with Thomas Noll's 'The Consonance/Dissonance-Dichotomy Considered from a Morphological Point of View,' that puts forward a structuralist investigation of tone and interval systems in terms of mathematical music theory. Dalia Cohen and Ina Michelson in 'Directionality and the Meaning of Harmonic Patterns' look at direction as a stylistic ideal in music. The section concludes with 'A Theory to Explain Hierarchies of Melodic Intervals in the Major Scale by Daniel Werts, seeking to explain psychological and statistical rankings of melodic intervals.

'Semiotic Aspects of Musical Structure' includes some papers that echo more directly the title of the text. 'The Indexical Science' by Raymond Monelle argues through two examples that the reason for music's apparent objectivity is its primary mode of signification that is indexical (reflecting seemingly natural signs, but really indicative of cultural context) unlike language that is mainly symbolic. 'Mixture, Song and Semiotic' by William Dougherty examines how musical semiotics, rooted in Charles Sanders Peirce's conception of the semiotic and its triadic conception of the sign, can be applied fruitfully to the analysis of a specific compositional process. Lewis Rowell in 'Emblematic Openings in Music' examines how the beginnings of musical passages are especially rich in semiotic power.

No contemporary music conference would be complete without a section on 'Anthropological and Cultural Aspects of Musical Meaning.' The titles of the papers in this section capture the topics covered for the most part. For example, Gunter Kreutz's 'Gender Difference and Sociographical Factors of Erotic Signification in Music,' and Michel Weber's 'Signs of Home in Austrian New Folk Music,' to the more traditional 'Fiction Planes and their Interplay: The Alchemy of Forms and Emotions in Bach's St. Matthew Passion' by Ruth HaCohen.

The final section on 'Semiotic and Sonic Structure in Twentieth-Century Music' includes papers that look more directly at the main conference themes. The first three papers in the section are in French. The first, by Raphael Brunner, 'Le moment sémiotique: historicie des approches, historicité des œuvres musicales,' looks at how generic criticism is an approach that resolves some of the problems and contradictions apparent between the traditional hermeneutic-based musicological viewpoint and newer approaches influenced by structuralism

and post-structuralism. In the second, 'Pour une quête de l'escape: conscience, manifestations et articulation,' Vita Gruodyte argues that the degree of intensity of spatial presence does not depend solely on the piece of music, but also on the perspective of the listener, since space is multi-dimensional and highly subjective. In 'Filophonia et Phonosofia entre pensée sonore et approche sensible,' Matthieu Guillot looks at the poetics of extremely quiet sounds. The author suggests imperceptible music as a form that requires a specific aesthetic and musical category based on a philosophy of sound termed Filophonia. Of the final papers in the section, one in German by Lubomir Chalupka looks at the application of *accordics* (a theory of the order and logic of simultaneously sounding pitch structures in twentieth-century music) in light of the historical period of their emergence in the 1960s. They are regarded as a symbol of bridging the gap between ideological, artistic or cultural divides between the East and West in music. The final paper in English, by Danuta Mirka, 'Young Penderecki and Fuzzy Sets,' looks at Penderecki's sonoristic pieces of 1960–62 with fuzzy logic tools, illustrating how the technology can be used as both a method of composition and a method of analysis.

Finding the common ground when running any kind of interdisciplinary conference is generally problematic. On first glancing through the text, a keynote address that would help to tie some of the main conference themes and papers together appears to be missing, and the editor's short preface is slight as a substitute for this.

The papers that address the central themes of the conference and attempt various kinds of synthesis between perspectives make the most interesting reading here, particularly those that seek to integrate semiotics with other aspects of musical thinking and analysis. As to the conference testing whether semiotics could stand up to its self-professed claim of functioning as a link between human sciences and empirical natural sciences, there are many papers that explore the different possibilities, some more successful than others. As the editor suggests, there is a tentative exploration here of a middle ground between traditional disciplines and cognitive musicology as an antidote to the excesses of specialisation, and this is also a main contribution of this refreshing and bold collection. There is much to be done to develop a robust synthesis.

The book relies on the reader having some fluency in a variety of perspectives on music, since the collection by implication captures the overall contradictions, differences and complexities that could be expected to arise from such a diverse gathering. With time to reflect and come to terms with the detail, each reader will make connections between different perspectives that are not immediately obvious. It is rare to get such a good standard of work across the board that allows this to happen within a single collection.

A difficulty with some of the papers in English is that a few authors seem to be writing in a second language. The resulting style is often unnecessarily convoluted, a problem compounded by dealing with often abstract subject matter. A consequence is to make the book less accessible to readers with a passive interest in the subject matter. As an academic text, it is perhaps best suited to graduate and advanced undergraduate classes. The reward is access to some of the leading European writers on a variety of music topics, and some of the most interesting recent and pioneering work to date on integrating semiotics and cognitive science with other forms of music analysis.

IAN WHALLEY