
Book reviews

Thomas Licata (ed.), *Electroacoustic Music – Analytical Perspectives*. Greenwood Press, Westport, CT 06881, 2002. xviii + 242 pp. ISBN 0-318-31420-9

In his introduction to the book *Electroacoustic Music – Analytical Perspectives*, the editor Thomas Licata writes that the nine chapters are: ‘(. . .) detailed analyses of important electroacoustic works while also demonstrating some recent approaches to the analysis of this music’. The significance of the electroacoustic medium with its plurality of languages is beyond doubt. The unique conditions of the medium, the means by which works are created and disseminated, continue simultaneously to challenge and clarify problems common to all contemporary music. Embodiment, performance, narrativity, nonlinear structures and the status of the ‘instrument’ – all these issues and how they are addressed in electroacoustic music are studied not only by analysts, but also musicologists and critical theorists. Despite these shared concerns, there is little doubt that different analytical methodologies intrinsic to the electroacoustic medium must be developed. Licata lists some of the problems that confront any analyst of this music, such as the status of the ‘score’ and the description, classification and organisation of sound materials. Moreover, the interdisciplinary nature of the medium often demands that analysts deal with concepts from psychoacoustics, acoustics and information science, thus adding yet another layer of complexity to any investigation. No book can be comprehensive and Licata has made an intelligent decision in restricting the repertoire under consideration to that of music for ‘tape alone’ composed during the period between 1950 and the late 1980s. Thus, discussions concerning ‘live’ electronics and instrumentalists performing with a tape are excluded. However, certain aspects of performance practice are considered, albeit indirectly, and the importance of spatial distribution of sounds and the necessity of sound diffusion is referred to by several contributors (these subject areas are, of course, sufficiently important to warrant their own volumes).

Achieving the correct balance in such a book is always difficult, particularly when the purpose is not only to provide analyses of works but also (according to the editor): ‘(. . .) a collection of diverse and wide-ranging perspectives on the nature of analysis itself’. The book, however, fell short of this ambitious undertaking. Most authors opted for detailed discussion on how the work was ‘made’ (a poietic analysis, to use Nattiez’s terminology). This is perfectly valid, but several chapters contained rather perfunctory discussions regarding listeners’ perceptual strategies, and few substantial attempts were made to investigate the

‘nature of analysis’ in the electroacoustic medium. There was insufficient variety in analytical methodology which undermined Licata’s entirely laudable claim.

For example, most of the analyses refer to the problem of the ‘score’ in its broadest sense (indeed, in his thoughtful foreword, Jean-Claude Risset mentions it within the first few lines). This is a perennial problem in electroacoustic music. Examining written material in the form of sketches supplied by the composer or ‘listening’ scores created by the analyst is consistent with much analytical practice. Risset quotes Marco Stroppa’s misgivings about ‘listening’ scores. Anyone who has ‘transcribed’ electroacoustic music as part of an analysis will know that the process depends upon choice, listening focus and the selection of sonic information, which is itself a valuable part of any analytical enquiry. Stroppa also believes that any detailed description of written ‘technical data’ (often derived from obsolete software and hardware) is incomprehensible to the general reader. While such enquiries might relate as much to musicological as analytical issues, it is precisely the connection between the technical means of realisation and the resulting musical languages that interests many theorists of electroacoustic music. For example, did the use of the impulse generator have an effect on Stockhausen’s early musical language and his personal relationship with serial thought? The answer is surely a resounding: ‘Yes’. Thus, the technical limitations of specific pieces of equipment (invariably ‘coerced’ into musical applications for which they were not designed) and the composer’s engagement with the resulting musical materials must be explored both from the technical as well as the musical/aesthetic viewpoints (an issue expertly addressed in the first chapter). Stroppa is correct in raising such issues and Risset provides an intelligent response. It would have been interesting had several of the contributors concentrated less on the descriptive aspect of analysis and included such wider issues in their chapters. This can be achieved by a study of the connection between the music and the preparatory materials. The period in which these works were composed, with the gradual move from analogue to digital media, is particularly rich in examples of such dialectical relationships.

One analytical strategy which seemed particularly popular was the use of sonograms. Indeed, four of the nine contributors used them in their chapters. In three cases (De Lio, Licata and Twombly), sonograms comprised at least half of the number of pages devoted to the analysis. These writers are clearly enthusiastic advocates of the sonogram. However, I remain sceptical of the method’s effectiveness and its relationship with written explanation. A sonogram provides

a time-based representation of the work's sonic structure, and distinctive features can be annotated for clarification. Moreover, the position of sounds in the pitch-field is indicated as is limited information regarding spectral content and dynamic level. Licata asserts that sonograms 'also provide views of a work's timbral properties'. However, can timbres really be analysed or, more importantly, represented most effectively by a sonogram? Can they clearly indicate subtle articulations and transitions from one type of spectrum to another? Would, for example, two or three sound families that are clearly differentiated by ear be recognisably distinct on the sonogram? Naturally, the scale of the visual display is important and while most of the sonograms were used to provide an overview of a fairly large section, shorter segments might have revealed greater detail. I have no doubts that the authors have listened to the music – no analyst of electroacoustic music would give precedence to the eyes over the ears. Nevertheless, the issue is how the aural information is most effectively represented in order to communicate with a reader. The sonograms seemed to confer an apparent objectivity which is questionable. A transcribed score, on the other hand, openly acknowledges its 'subjective' origins. Sonograms certainly have their uses as a visual aid, a first step in sorting out the aural information and for indicating events in time. Improvements to this approach will no doubt be developed and I am certain many will disagree with my opinion. Furthermore, I found it irritating to read separate explanations about how each sonogram should be interpreted. I wished for a single explanation (perhaps in the introduction) which would be sufficient for all the subsequent appearances (though I accept that many interested musicians might skip the introduction and only read specific chapters). Thus, the problem of visual representation for electroacoustic music – which invariably defies standard notation practice – was only touched on implicitly.

Having expressed these criticisms, there is much of value in this book. A detailed summary of each chapter would be beyond the remit of a review, but several contained significant and illuminating material. In chapter one, Elena Ungeheuer and Pascal Decroupet provide scrupulously detailed information about Stockhausen's *Gesang der Jünglinge* (surely one of the twentieth century's classic compositions). Their authoritative analysis is based on a precise examination and explanation of the composer's sketches and articles. The relationship between Stockhausen's preparatory material and the resulting music is always clearly expressed, and his thought processes are revealed as they show how he balanced the demands of the objective system and his subjectivity as a composer. Ungeheuer and Decroupet supplement their analysis with diagrams, tables and an appendix concentrating on the text. These materials situate *Gesang der Jünglinge* specifically within the context of serial thought and 'moment' form, and in doing so they extend the analysis beyond this work to the influence of the electroacoustic medium in general. Moreover, they demonstrate the seminal importance of the use of the impulse generator. Thus, even if much of this equipment is no longer accessible, understanding its role in how musical language developed is crucial. This chapter demands close, attentive reading and will doubtless become an indispensable text for any scholar interested in *Gesang der Jünglinge*.

In chapter three, Konrad Boehmer launches into a thorough and provocative discussion of the medium itself. He goes beyond his specific analysis of Gottfried Michael Koenig's *Essay* and tackles the very problems that beset much electroacoustic music. The bias in his assessment is always evident (he does not hide his prejudices): the Cologne studio is regarded as preferable to that of Schaeffer's Studio d'Essai where 'the musical results were considerably more primitive'. Koenig (an unjustly neglected composer even in electroacoustic circles) ensured that electronic music displayed 'non-instrumental' characteristics resulting from studio practice where the composer becomes in effect the performer. Boehmer relates the sonic material to the 'score' for *Essay* which exists for technical realisation rather than for a listener to 'follow'. He also analyses the serial background and describes the realisation process in detail and asserts that Koenig's composition heralds a new 'thinking in music'. Boehmer is by nature a polemical thinker, grounded in the social and aesthetic conditions of the work, and therefore makes claims that are controversial. For example, I am not persuaded that Schaeffer's relationship with technology was 'disastrous' for much of the following electroacoustic music, and I am even less convinced that *musique concrète* eventually came closer to the Cologne school's aesthetic presuppositions. Nevertheless, Konrad Boehmer is a thinker who is sensitive to the sociological and political ramifications of contemporary music: one cannot ignore him.

Jerome Kohl's chapter deals with another composition by Stockhausen: *Telemusik*. (Stockhausen is the only composer to be represented twice in this book.) He also demonstrates the fundamental importance of serial thought to Stockhausen's music. Kohl has a formidable expertise in Stockhausen's texts and collects relevant information from many sources to illustrate his investigation. Each feature of the music is verified by reference to texts by Stockhausen, and Kohl clarifies the structure of the work's individual 'moments' emphasising the importance of the Fibonacci series and the various types of temple bell which initiate each section. By referring to Stockhausen's early works, as well as his most recent project, *Licht*, Jerome Kohl is able to include insights regarding the composer's formal processes which will be of value to anyone researching the significance of 'moment' form and its legacy.

Two chapters consisted of analyses by composers of their own works. Chapter six by Otto Laske illustrates the problem of what he calls a 'procedural' analysis, where he sets out to 'analyse the structure of the process' of his work, *Terpsichore*. He states correctly (if somewhat self-evidently) that 'there will never be a single method'. Laske provides many detailed descriptions of the programs he used and asserts that his approach will capture the 'mental processes giving rise to music rather than simply analysing the end results'. Fascinating as it is to read a composer's solution to his various technical problems, I remain unconvinced that it is an analysis of his composition, although Laske begins to develop his arguments in the chapter's concluding section. James Dashow in chapter eight also approaches his own work and explains his intentions as a composer (the chapter originated in an article for *Perspectives of New Music*). The discussion on the functional aspects of timbre is interesting, and he is disarmingly honest in saying he cannot 'account

for many of the decisions (. . .) that went into the creation of this piece'. The account he provides is wide ranging with references to Polanyi and Piaget. Once again, it is interesting to read a composer's attempts at analysing his own work processes, and Dashow does describe the events and seeks to explain their significance for the listener.

In conclusion, this book is a welcome addition to the few volumes on the analysis of electroacoustic music and individual articles which can be found in periodicals.¹ For example, 'Die Analyse elektronische Musik – eine Herausforderung an die Muskiwissenschaft?' originates in a colloquium and has a more balanced approach to the poetic and esthetic levels. On the other hand, 'L'Envers d'une Oeuvre', though twenty years old, is an unapologetic poetic investigation of one of Parmegiani's celebrated works. My criticisms of the book's concentration on sonograms will perhaps be proved wrong: the technique must be used and debated publicly before a real assessment can be made and software such as the GRM's 'acousmographie' and the use of colours to provide more explicit differentiation would help (even if it does cause problems for the publisher). Lastly, if any book demanded an accompanying compact disc with selected examples (if not whole works), then it is a volume of analyses of electroacoustic music. Publishers please take note.

John Dack
Middlesex University

Francis Rumsey, *Spatial Audio*. Focal Press, Oxford. 240 pp. Softback. ISBN: 0-240-51623-0.

Francis Rumsey is well known as an educator in the field of sound recording. He has, of course, run the renowned Tonmeister course at the University of Surrey (UK) for many years. He is very active within the Audio Engineering Society and has written widely on recording and related subjects, as well as being editor of the Focal Press' 'Music Technology Series', of which this volume is one. As he has, in recent years, been conducting research into the perceptual aspects of the various forms of surround sound used in the media, it was natural for him to take on the task of producing a book on spatial audio for the series.

For a relatively slim volume of only ca. 240 pages, the author has provided a remarkably wide-ranging and comprehensive review of all the mainstream technologies of surround sound (plus a few more obscure ones), as well as a significant section on the human spatial hearing system. As befits his role as an educator, he has taken pains to avoid concentrating overly much attention to any particular system, though his considerable expertise in 5.1 systems, especially those based on the ITU-R BS775 standard, is

clearly reflected in the text. Less commercially important systems are covered in sufficient detail for the reader to be able to assess their potential benefits and pitfalls. Of particular interest to the current reviewer is coverage of ambisonics, an aspect which is often sadly lacking, even in the 'standard references' for the field, such as Begault's *3-D Audio for Computers and Multimedia*, but which in this book is well, though not extensively, covered.

One could quibble that there is a lack of mathematical rigour in the verbal descriptions, but the more obviously 'spatial audio' systems, in other words those using significant numbers of channels, are extensively covered and there are also chapters investigating the theory of two- (or three-) channel stereo and binaural systems, as well as their related recording (and monitoring) techniques. These provide a sound grounding for the discussion of the more complex multichannel systems, by rooting that discussion in the context not only of the human spatial hearing system, but also within that of more than sixty years of stereo practice. The chapters on stereo are themselves almost worth the price of the book, putting into a few dozen pages what some other writers have failed to do in an entire book, distilling the essence of what is good (and bad) about each of the different techniques into a clear and concise guide. Much the same is done with multichannel surround, though naturally much more space is devoted to this.

In short, viewed from the point of view of an audio engineer, this book is an excellent one, and it will take its place in my collection of standard reference works, alongside Begault's volume and Jens Blauert's *Spatial Hearing*. My review copy is already looking rather dog-eared! However, it has to be said that, within the context of the readership of *Organised Sound*, there is rather a dearth of material specifically related to the compositional implications of surround sound systems. On the other hand, this would perhaps be better covered in a companion volume. For composers seeking to extend their knowledge of current surround sound technologies, this book is, nevertheless, a recommended read.

Dave Malham
University of York

Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction*. Duke University Press, Durham & London, 2003. 450 pp. Paperback. ISBN 0-8223-3013.X.

The Audible Past is an erudite and painstakingly researched attempt by its author to make inroads towards a body of theory on 'sound culture' to complement and counterbalance the preponderance of recent writing on visual culture (p. 3). The author sees this project as allied to Marx's desire to map a comprehensive history of the senses that will, furthermore, shed light on the myriad ways in which 'the history of sound contributes to and develops from the "maelstrom" of modern life' (pp. 5, 9). An important part of this project runs parallel with postmodern and poststructuralist theory's concern to direct attention towards aspects of experience that are habitually and largely unknowingly disengaged from the cultural sphere thereby becoming attached to the rarefied domain of 'the natural'. (For an eloquent theoretical review of this phenomenon, see Linda

¹*Journal of New Music Research* 27(1/2), 1998, Special Issue: 'Analysis of Electroacoustic Music' with guest editors Lelio Camillieri and Denis Smalley.

Ruschkowski, A (ed.), 1991, *Die Analyse elektroakustische Musik – eine Herausforderung an die Musikwissenschaft?* Published by DecimE as proceedings of a colloquium in Berlin, 26–28 April.
Mion, P., Nattiez, J.-J., and Thomas, C., 1982, *L'Envers d'une Oeuvre – De Natura Sonorum de Bernard Parmegiani*. Paris: INA/GRM, Buchet Chastel.

Hutcheon's *The Politics of Postmodernism*). Hearing, more than any of the senses, would appear to be a powerful magnet for transcendentalist and transhistorical strains of thinking, due to the common assumption of the phenomenological impact of sonic experience as precluding or rendering superfluous historical experience (p. 14). Sterne argues that these 'self-evident' assumptions concerning the interior and transcendental nature of sound constitute what Bordieau would call a *doxa* (p. 336), which is distinguishable from the related concept of 'orthodoxy' by the unconscious or 'default' nature of the processes involved.

Sterne navigates a circuitous path through distinct but related realms of sonic experience, ranging from the early development of the telephone and phonograph to social practices bound up with the invention of the stethoscope. Some of the discursive ties opened up in the book are speculative, such as apparent homologies between medical techniques of listening and those found in early telegraphy and telephony. Both sets of practices are justifiably seen as articulating Romantic and Victorian notions of the self as autonomous with a whole gamut of assumptions concerning gender, class and other social categories in tow. The evidence presented is compelling although the author wisely concedes that conclusions drawn on the basis of this evidence constitute 'a deliberately speculative history' (p. 27).

The most obvious precursors of Sterne's historiographical approach are Foucault's influential genealogical studies of sexuality, punishment and mental health. As in Foucault's groundbreaking studies, *The Audible Past* is solidly grounded in archival materials, from which the author never strays far. Rather than paraphrasing source materials, however, these are frequently allowed to 'speak for themselves', which brings 'local' and 'historical colour' to discussions whilst providing a solid empirical foundation for more interpretative forays, but which inevitably results in some degree of 'dryness'. This dryness is accentuated in sections of the book that one can imagine are only distantly related to many readers' interests; for this reader, the lengthy chapter on 'mediate auscultation' in medicine is the most obvious example. The approach taken, therefore, requires a high level of commitment on the part of the reader: those with a strong interest in all of the subject areas covered will no doubt be willing to follow the author's occasionally laborious lead but readers for whom some of these areas are peripheral might well fall by the wayside. This is a shame as a few adjustments in the manner of presentation and the balance of material included could have resulted in a more approachable and tautly fashioned volume, whose inclusion on reading lists for a wide range of university courses would have been easily justifiable.

A key argument resists the view of history implied in so called 'impact narratives', which present changes in technologies as unfolding of their own velocity from immediate technological predecessors. In this view it is the technologies themselves that are the primary vehicles for change, resulting in a form of technological determinism, which overlooks human choice both in terms of the technological transformations themselves and in the uses made of them (pp. 7–8). As Sterne puts it, the sense we make of the sonic world is cultural 'all the way down', not just at an imagined performative end-point. In taking such a strong post-Adornian

position, he resists pervasive narratives of modernisation, which detach innovation from human agency whilst at the same time imposing a crudely causal and linear evaluative system on changes in modes of cultural production. But perhaps by taking this somewhat unyielding route Sterne bypasses some of insights offered by carefully weighted post-Benjaminian arguments, which balance human agency against the ever-changing material circumstances of artistic production.

Related to this argument is the controversial view that no significant change in consciousness demarcating a shift in subjectivity from the modern to the postmodern has – in contradiction with much of the literature – taken place. This argument, which has been made more convincingly by other writers (including Goodwin, Habermas and even Baudrillard), is backed up by very little evidence in Sterne's study, which is largely concerned with the Victorian to early Modern period and has very little to say about recent artistic production except in the discussion section. I would agree that Derrida's notion of 'the supplement' is useful in accounting for the prefix 'post' in the word 'postmodern', and theories of postmodernism from Jencks to Jameson could easily accommodate this view, suggesting a greater degree of continuity between the two categories than has sometimes been suggested; but even in Derridean terms the supplement inexorably alters the nature of the 'primary object' to which it is affixed suggesting that a change in consciousness, albeit a subtle one, has indeed taken place. One senses that Sterne is least comfortable when extending his arguments into the present and even 'the future', as the title of the final chapter implies, although his attempts to do this should be applauded and undeniably bring home the contemporary relevance of his work.

No punches are held in discussions of R. Murray Schafer's personal yet still influential ideas on acoustic ecology and 'soundscape' (pp. 342–3). The metaphysical underpinnings of Schafer's paradigm are meticulously unravelled and a kind of 'worst case scenario' is presented in which sound as the be-all and end-all of subjectivity is shown as doing a disservice to those without access to this sensory field – namely the deaf. Sterne sees the Schaferian ecological view as emerging from a genealogy that casts the deaf and mute as at best experientially impoverished and at worst subhuman. The work of Oliver Sacks and others with the deaf is convincingly brought in to buttress these arguments. It is high time Schafer's paradigm was subjected to rigorous philosophically grounded scrutiny although one cannot help feeling that by doing this Sterne takes a transparently idealist aesthetic treatise for a serious musicological exposition. Cultural musicologists familiar with the writings of modernist composers from Stravinsky and Schoenberg to the present day are painfully aware of the philosophical quagmire they are stepping into. From the standpoint of recent ideological critique such writings are 'easy pickings'; which is not to say that such writers should be immune from critique – it is more a question of strategy and relevance to the specific argument being put forward. The critique of Schafer is without doubt warranted but peripheral to the central arguments of the book. And by bringing in the disabled the impression is given of clutching at straws.

In discussions of visual representations of early sound reproduction, there is no questioning the focus and analytical acuity of the writing, much of which resembles similar

work by Leppert and Kramer. By far the most engrossing and enlightening section of the book contrasts the Victorian culture of death with our own more overtly sanitised thinking in this regard. Emblematic of this orientation are representations of the dog Nipper, more commonly known as the His Master's Voice dog. Overspill from the Victorian mindset, manifested in an obsession in early sound recording with capturing voices of the dead and thereby achieving for those whose voices have been recorded a mode of sonic immortality, found its way to this ubiquitous image. His Master's Voice, it would appear, was the voice of Nipper's master speaking to the dog from the grave; or, more precisely, from the coffin upon which Nipper is seated, visible in early instances of the image but eventually expunged due to changing attitudes towards such imagery.

This is but one example of the originality and eccentricity (in the non-pejorative sense) that characterises much of the book, which help to make it an important addition to literature examining the cultural foundations of sound reproduction. Even the inclusion of medical research, arguably the least interesting chapter, encourages the recognition of previously neglected ties between listening practices in diverse cultural areas. Such forays can be both fruitful, in terms of the conclusions brought to light, and entertaining. At 450 pages, however, this is a weighty and somewhat rambling volume that could and probably should have been distilled by the editors at Duke University Press down to something in the region of 300 pages. One can understand the logic behind editorial non-intervention, as much of the book is so exquisitely written that it almost begs to be left alone – the reference to writing 'that is taunting and tautological (tauntological?)' on p. 216 is one example of the playful profundity of Sterne's prose. A harder editorial line, however, would have done both the author and the book's readers a considerable service. One further complaint for the editors: this book has the smallest font size of any academic

book, excluding reference works, at my immediate disposal when writing this review. This is not a minor issue; if there is to be a second edition, changing the font size should be considered a priority. I came close to giving up on this review simply because reading the book was so physically demanding. I would imagine that responses of other readers might be similar.

In summary, *The Audible Past* is an ambitious and timely study that deserves a prominent place in the literature in this burgeoning field of study. Perhaps inevitably in a groundbreaking study such as this, points are occasionally laboured and the temptation to over-generalise is not always resisted. The somewhat cautious and self-reflexive attitude of the introduction, for example, concerning the North American bias of the book, seems to get lost as it progresses and is nowhere to be found in the sweeping statements of the concluding chapter. The book goes some way, however, towards answering some of the 'why questions' surrounding cultural approaches to sound technology, particularly in the historical context of early sound reproduction in North America: questions such as 'Why these technologies now? What social forms, what social relations, do they encapsulate' (p. 337). It would behove composers as well as cultural theorists to devote time and energy to this level of self-reflection, although Sterne makes few concessions to readers unfamiliar with the tenets of his paradigm. Moreover, his pessimistic stance seems to offer little foothold to those working in artistic production, whose hopefully enhanced awareness of the historical embeddedness of listening practices is of little use without a complementary awareness of the paralysing idealism of anti-idealism in its most uncompromising forms. My recommendation: read the book, carefully.

Dr John Richardson
University of Jyväskylä, Finland