become newly aware both of their own creative role in performance and of the specific physical actions they are undertaking. As a result, 'radically idiomatic' compositions can revitalise a performer's understanding of their own practice; Francesca Placanica's study of the interaction between John Cage and Cathy Berberian in the composition of *Aria* highlights not only Berberian's transformative influence on Cage's vocal writing (and that of many subsequent composers), but also the effect of *Aria* as 'an epiphanic *medium* through which Berberian realized her own release from [the] cultural and social constraints' of post-war Milan (p. 274).

The book is not without its lacunae. The close focus on musical concerns occasionally obscures the possibility of connections to other spheres such as literature or visual arts, each of which understands the term modernism in quite different ways. Even within the musical arena, the chosen repertoire remains fairly homogenous. In the introduction, the editors acknowledge that 'there is little discussion of the American avant-garde, minimalism, spectralism, or neo-romanticism', nor of non-Western or electroacoustic works (p. 7); I would have valued the chance to see how the ideas presented here might apply to these other repertoires - especially since a 'transformed' idea of modernism as an attitude, rather than an epoch or a style, broadens its relevance so spectacularly. More pointedly, given cutting-edge aims of the book, only two chapters (Whittall's and Metzer's) engage substantively with any music written after 2000: if modernism is really to be considered as an absolutely contemporary, living phenomenon, why not include discussions of recent works by, for example, Hans Abrahamsen, Liza Lim, or Wolfgang Rihm, alongside the 'modernist canon' of Boulez, Ligeti, Berio, Nono, Ferneyhough? But these seem like minor quibbles when set against the variety and detail of this collection. It is both a document of the transformations it describes and a rich contribution to that process of renewal.

Mark Hutchinson

From Scratch: Writings in Music Theory by James Tenney, edited by Larry Polansky, Lauren Pratt, Robert Wannamaker and Michael Winter. University of Illinois Press, 2015. \$80.00

Aside from a special edition of *Contemporary Music Review* in 2008, there have been relatively

few publications devoted to the work of James Tenney; until now, the main reference has been an issue of Peter Garland's Soundings from 1983, which included a number of scores and writings by Tenney, such as his 'Meta + Hodos' and 'META Meta + Hodos', and many descriptive essays by his colleague Larry Polansky. The new publication, From Scratch, edited by Polansky and other close associates of Tenney, does a remarkable job of bringing together a much wider range of texts, from the more well-known 'Meta + Hodos' and 'On "Crystal Growth" in Harmonic Space' to many lesser-known texts from throughout Tenney's life (1934-2006). Due to its broad range, this new book is without doubt a landmark publication for those involved in Tenney scholarship, and all that entails: post-Cageian thought, the re-evaluation of harmony, instrumental tuning and the conception of harmonic space, not to mention wider fields of music perception and cognition, psychoacoustics, computer-aided composition and aesthetics. Tenney's committed belief in the quantitative description of the process of listening marks him out as a hugely innovative musician, and the interconnectedness of his writings and compositional work presented here offers a vibrant, compelling model for all practitioner researchers.

Tenney himself had consulted with From Scratch's editors on a collection of his writings before his death in 2006, and had left behind copious notes for the presentation of each of these texts. The writings are organised chronologically throughout the book, which feels like the most appropriate decision; much of Tenney's varied strands of thought seeps across the different texts, and so any other sort of categorisation would become somewhat fruitless, whereas the ability to chart development of thought across broad periods of time proves insightful. Whilst Larry Polansky's introduction groups the texts into three different streams (Meta + Hodos and Its Allies; Harmony; Pieces) for the sake of coherence when describing each one further, the decision not to structure the collection itself in this way makes much sense.

The aim of the book is to present Tenney's writings in a single publication, and to allow the content to speak for itself. The introduction doesn't broach the decision not to provide accompanying contextualising commentaries for the writings, and we don't know whether Tenney was intending to write any commentaries himself. However, accompanying contextualising commentaries would certainly have helped illuminate the original texts further;

¹ Contemporary Music Review, 27: 1 (2008).

these commentaries could include, for instance, how his work was received at the time, attempts to trace its influence, or the way in which recent work on Tenney by other authors might expand the discussion (for instance, articles from the *Contemporary Music Review* issue). One aspect of the book that may have prevented the desire for contextual commentary is its length: at 424 pages plus extensive appendices, there was perhaps little room for further inclusions in just a single publication.

The variety of textual genres is a very appealing aspect of the collection, and a credit to the editors. Included are programme notes, a book review, journal articles, Tenney's expanded Master's thesis, an excerpt from his book A History of 'Consonance' and 'Dissonance' (1988), a research proposal and a transcribed lecture including the subsequent question and answer session. Over a period of 44 years, Tenney writes about histories and lineages, develops new theories and carefully reflects upon his own creativity. Through this rich variety, we see him articulating intellectual inquiries in numerous different voices, each of which shines a different light upon his work and character. The publication information for each text is found in a list after the appendices; this list provides much valuable information, but may have been more helpfully presented at the beginning of each text, woven into an abstract.

The collection of texts allows the opportunity to see how ideas were refined and expanded over time, demonstrating Tenney's obsessive nature continually to ask questions of his own work and extend existing ideas. One example concerns the Temporal Gestalt theory of perception which was put forward in 'Meta + Hodos' in 1961, subsequently framed for a wider scope in 'Form in Twentieth-Century Music' (1969-70),expanded to include a unifying theory for all temporal levels in 'META Meta + Hodos' in 1975. 'Hierarchical temporal gestalt perception in music: a metric space model' (1978-80) addressed unanswered questions concerning how we determine Temporal Gestalts amongst others, and the creation of a new, more defined, model for perception.

Similarly, the development of the harmonic lattice, in which relationships between pitches of whole integer ratios in just intonation can be expressed by their spatial proximity, can be seen across 'The Structure of Harmonic Series Aggregates' (1979), 'On "Crystal Growth" in Harmonic Space' (1993/2003) and 'The Several Dimensions of Pitch' (1993/2003). Being able to see this process of re-examination and refinement in progress is very striking, and provides an

outstanding example of how projects can be developed over long time periods.

Tenney's review of Thomas Clifton's book Music as Heard,² from 1983, is - as Michael Winter is quoted as saying in From Scratch's introduction - 'not only an excellent review of someone else's work but an extraordinary articulation of his own' (p. xv). When I first came across the review in my own research, I was struck (and daunted) by the way in which Tenney manages to combine such a vast scope and manifesto-like tone whilst maintaining a respect for and sincere engagement with Clifton's book. Through his critical evaluation, we are able to detect Tenney's specific relationship with phenomenology, in that he sees its great potential for his project, but is wary of the kind of solipsism which he sees inherent in Clifton's work; throughout the review, Tenney's focus upon the immediate auditory perception is clearly revealed.

The two programme notes, 'Reflections after Bridge' (1984) and 'About Diapason' (1996), offer up a sincerity and clarity which contextualises his own work with others, and affords Tenney a more accessible speaking voice than some of the other texts. His comments in 'Reflections after Bridge' on composers engaged in dividing the octave into 24, 36, 48 or other divisions show a respectful engagement with the lineages of these composers, but he takes great care to clarify that his interest lies in a new way of conceptualising the role of harmony - how it could serve other purposes than it had during the commonpractice period - rather than what he felt was just extending the harmonic language within preexisting definitions. Whilst reading Tenney's original voice here is of course important, it would have been interesting to consider how composers utilising alternative scale divisions have attempted to reconcile their work with Tenney's innovations, so as to broaden out the discussion.

The excerpt from A History of 'Consonance' and 'Dissonance' shows Tenney's search for a way to broach harmonic terminology at the end of the twentieth century, having accounted for the changing meanings of the two titular terms over the past 1100 years. Interestingly, in his introduction, Polansky posits this as a 'fascinating and essential detour' (p. xxiv) for Tenney, yet I have always considered this book a necessary focus for Tenney's examination of harmony, rather than a detour as such. I'm very pleased to see the excerpt in here (sadly the entire

² Thomas Clifton, Music as Heard: A Study in Applied Phenomenology (New Haven: Yale University Press, 1983).

book, which is out of print, would have been too long to include), and the chapter selected is one that provides summation of earlier ideas in the book whilst raising new critical questions.

The inclusion of the transcription of the lecture Tenney gave at the 1990 Darmstadt Ferienkurse in this collection is inspired; here we see Tenney describing his desire for a theory with which to compose, a desire which arises from 'sheer curiosity'; he details the harmonic lattice concept, framing it as a theory based not upon what one ought to compose, but what will happen if one makes this decision, or that. His responses to questions afterwards provide further rich understanding of Tenney's outlook, and the variety of perspectives represented in the questions (including those asked by Brian Ferneyhough, Clarence Barlow, Daniel Wolf and Gertrude Meyer-Denkmann) shows a fascinating positioning of Tenney's work amongst his contemporaries; this gave an insight into what such accompanying commentary could have yielded for other texts within the book.

Throughout the collection, a picture builds up of a musician who is obsessively concerned with how our auditory and cognitive processes deal with sound, and how this can inform compositional design. We read of a scholar who reflects intensely on his methodology at all stages of the working process; someone who questions orthodoxy and possibility, re-questions, reformulates, and has a strong desire to find out how other work has challenged his own. Yet there is humour in the writings, alongside a deep respect for other traditions, all backed up by an incisive, restless intellect.

In summary, this collection of writings provides a superbly revealing insight into Tenney's work, and the couching of prominent texts alongside much less well-known ones helps to enrich the understanding of him and his work. More commentary from the editors would have yielded a wider context and understanding of Tenney's position within contemporary music studies, but one can appreciate their decision to allow the texts to speak for themselves. The book is a significant and necessary addition to Tenney scholarship.

Richard Glover

The Graph Music of Morton Feldman by David Cline. CUP, 2016. \$120.00

David Cline casts a light on the least performed, most equivocal branch of Feldman's work and

for this his book is to be warmly welcomed. These pieces in which the pitch element is only partially defined were composed on graph paper. They should not be seen merely as an early phase that Feldman passed through but as examples of a method of working he used off and on between the ages of 24 and 47 (1950 to 1967) – half of his creative life. There are 16 published works of this kind, ranging from solos, music for various sized mixed ensembles, and several orchestral pieces. Taken as a whole these compositions reveal many unfamiliar aspects of Feldman, for although we still find the soft, introverted Feldman we know so well, we may discover, too, the quicksilver sound complexes of The Straits of Magellan and music of extreme virtuosity such as in *Intersection 3* which, in a letter to the pianist David Tudor, the composer described as 'music like violently boiling water in some monstrous kettle' (p. 40).

Feldman's composing life was in the nature of an ever-evolving search whose significance is revealed by its totality. The immense sensual vistas of his later style are only the final culmination of this struggle, not the expression of some instant Californian nirvana. This book helps us perceive the whole and, like all good commentaries on music, it quickly led me to listen afresh to pieces I thought I knew in light of the copious new information. Every section of the book is accompanied by sufficient illustrative excerpts from the scores for the reader to follow with ease, but you will probably find, as I did, that you want to consult the full published scores from time to time. For anyone thinking of performing a Feldman graphic score this book is essential reading, and it is valuable, too, for those with wider concerns. Cline clearly explains the notational ambiguities inherent in these scores and then sets out the crucial questions arising from Feldman's brief but often unclear performance instructions.

In the opening historical chapters, the scores are split into two groups, the first of which covers the early graphs from 1950–53. These are the fruit of that crucial time when the New York School was first coalescing around Cage: radical new doors were opening, change was in the air, and in this tumultuous period the music of all four composers was changing, not only month by month but sometimes day by day. Their development was so rapid that it is now extremely tricky for an historian to disentangle the exact chronology. Nevertheless, Cline shows himself to be the man for the job. He guides us through with admirable clarity,