

Review

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Robert Wannamaker, *The Music of James Tenney*, 2 vols. (Urbana, IL: University of Illinois Press, 2021), ISBN 9780252043673 and 9780252043680.

Was James Tenney (1934–2006) a pioneer of computer music? A participant in the mid-1960s Musical Minimalism? A designer and explorer of alternative tuning soundscapes? A sometimes-performance artist, whose bottom appears in an infamous Yoko Ono film? A theorist proposing new analytical modes based on musical perception? The answer is ‘yes, and then some’, as Robert Wannamaker’s *The Music of James Tenney* elucidates over the course of two exhaustive and meticulously researched volumes. Tenney’s music, protean in appearance and seemingly eclectic in method, may appear daunting to analyse due to the composer’s often complex poetic approach. In these volumes Wannamaker argues that there is a clear through-line underscoring Tenney’s compositional development: the sensory experience of the listener, which Tenney considered the crucial connector between his theoretical and compositional efforts. Wannamaker never loses sight of this premise, constantly supporting it with analytical and historical examples, while framing this exegesis as merely supportive of the listening experience.

Although existing scholarship on Tenney’s music includes collections of essays and a range of historical and theoretical journal articles, Wannamaker’s is the first monographic survey dedicated to the composer’s work, thus filling an important gap in experimental music histories in the United States.¹ In various guises, Tenney learned from and worked alongside Varèse, Cage, Ruggles, Hiller, Partch, Reich, Glass, and members of the international and interdisciplinary art network Fluxus; later in life, he taught generations of younger composers including Larry Polansky, Wannamaker himself, Gayle Young, and Catherine Lamb. In addition to his personal insights as a composer, Wannamaker is a well-regarded authority on Tenney, having published articles that posit his importance as a North American precursor of so-called Spectral music, and co-edited an exhaustive collection of Tenney’s theoretical writings.²

1 For book-length collections, see Peter Garland, ed., *The Early Music of James Tenney* (Santa Fe, NM: Soundings Press, 1984); Larry Polansky and David Rosenboom, eds., ‘A Tribute to James Tenney’, *Perspectives of New Music* (special issue) 25/1–2 (1987); and Robert Hasegawa, ed., ‘The Music of James Tenney’, *Contemporary Music Review* (special issue) 27/1 (2008).

2 See Robert Wannamaker, ‘The Spectral Music of James Tenney’, *Contemporary Music Review* 27/1 (2008); Robert Wannamaker, ‘Rhythmicon Relationships, Farey Sequences, and James Tenney’s Spectral CANON for CONLON Nancarrow’, *Music Theory Spectrum* 34/2 (2012); and James Tenney, *From Scratch: Writings in Music Theory*, ed.

Volume 1, subtitled ‘Contexts and Paradigms’, surveys the development of Tenney’s music in chronological order, identifying more-or-less discrete phases corresponding to particular biographical moments and environs. Each chapter analyses two to four representative and illustrative pieces from the same timeframe, with the remainder addressed instead in Volume 2, ‘A Handbook to the Pieces’ (intended, by the author’s own admission, more as a reference text). Wannamaker provides succinct but often vibrant vignettes to flesh out Tenney’s character and personality as he finds his way first to New York City, then to college and graduate school in Vermont and Illinois, back to New York through California and Toronto, before returning to Cal Arts towards the end of his life. Excerpts from letters and other archival documents paint a striking picture of the composer over the years, while reinforcing the more strictly musical analytical points made in the texts.

After a brief biographical introduction, Chapter 2 delves into analysis of some of Tenney’s early pieces, such as the score for *Interim* (1953) by experimental filmmaker Stan Brakhage (a high school classmate and enduring friend of the composer), and the orchestral work *Seeds* (1956), in which Wannamaker articulates the first signs of Tenney’s interest in timbre as a main compositional pursuit. Chapter 3 follows Tenney as he completes his Master’s degree at the University of Illinois: there Tenney moved his first steps in the realm of electronic music, working with Lejaren Hiller but ultimately feeling frustrated by the limited capabilities offered by the rudimentary equipment of the Illinois studios. In Urbana-Champaign, Tenney also served briefly as Harry Partch’s assistant; though their relationship was not particularly close, the influence of the elder composer would bear fruit decades afterwards, with Tenney’s development of his own harmonic and intonation systems. In a preview of later moments in the book, Wannamaker introduces and contextualises *Meta-Hodos* (1961), Tenney’s framework for the analysis of musical form and texture based on principles of *gestalt* psychology, connecting this seemingly remote theoretical enterprise to compositional and artistic concerns crucial to the composer’s career – hierarchical formal concepts such as *clangs* and sequences, for instance, will form the organisational basis of future algorithmic approaches.

Tenney’s disappointment with primitive electronic music studios was vindicated by his productive tenure at the Bell Telephone Laboratories as a researcher, chronicled in Chapter 4. At Bell Labs, Tenney produced some of the earliest extant computer-synthesised musical compositions, which Wannamaker analyses by providing brilliant examples and informative historical and technical context on how those pieces were planned out, programmed, and finally realised on magnetic tape. An in-depth analysis of *Analog 1* (*Noise Study*) (1961), for instance, outlines the compositional process from inspiration, through algorithmic programming, and to Tenney’s final decision to overlay three speed-altered versions of the piece into a mensuration canon. Throughout the text, Wannamaker illustrates his analyses with diagrams and spectrograms that become, effectively, graphic scores, allowing the reader-

Larry Polansky, Lauren Pratt, Robert Wannamaker, and Michael Winter (Urbana., IL: University of Illinois Press, 2015). Analyses from Wannamaker’s published articles appear in revised and expanded form in vol. 1, ch. 8, and vol. 2, chs 6, 7, and 9 of this text.

listener to experience these famous and perhaps familiar compositions with greater clarity than ever before. This works especially well in the case of electronic pieces such as *Noise Study*, the earlier *Collage #1 ('Blue Suede')* (1961), or the later *For Ann (Rising)* (1969), given the typical absence of a conventional score.

In Chapter 5, a position of particular importance is given to Tenney's personal and professional relationship with performance artist Carolee Schneeman. Wannamaker connects Schneeman's embodied work not simply with Tenney's physical and artistic participation in projects such as *Meat Joy* (1964) and *Viet Flakes* (1965), but more broadly in his continuing development of a music centred on the *experience of the listener*, culminating in an illuminating analysis of *Fabric for Che* (1967), one of Tenney's most violently noisy compositions. The composer's personal and political motivations for the piece – an unrelenting electronic threnody for Ernesto 'Che' Guevara – are linked to previous technical and formal preoccupations, from ergodicity (statistically self-similar) to the earlier realisation of *Noise Study* in employing tape manipulation to generate the final large-scale structure.

Chapter 6 is dedicated to Tenney's renewed turn to musical processes in the mid-1960s, a development that the author connects both to canonic Minimalist composers and to the sustaining influence of Cage's aleatoric compositions of the 1950s. The never-ending siren of *For Ann (Rising)* is a different kind of process piece than either, relying even more heavily on the listener's intent for tracing a path through the disorienting psychoacoustic soundscape. As a counterpart, analyses of two of Tenney's most popular *Postal Pieces* (1965–71) – the violin solo 'Koan' and the iconic 'Having Never Written a Note for Percussion' – once again demonstrate Wannamaker's penchant for bringing forth illuminating details with seemingly self-evident compositions, and continuously connecting Tenney's compositional efforts towards formal and timbral elements that are focused on the experience of the listener. For example, his analysis of 'Having Never. . .' connects the inherent spectral characteristics of an excited tam-tam (the instrument of choice for most performances) with the manifold and fleeting manifestations of chords and melodies arising from the interaction of the partials with each other and with the performance (or recording) space.

In order to properly contextualise and discuss Tenney's works from the 1970s onwards, Wannamaker dedicates the entirety of Chapter 7 to the composer's developing harmonic theories. Classic Tenney concepts such as the Consonance-Dissonance Complexes (an essential and woefully under-recognized system for analysing historical approaches to harmonic perception through much of Western musical history), the ideation of Harmonic Space, and the measurement of Harmonic Distance, are introduced and explained with clarity and thoroughness, drawing not just from the texts that Tenney published during this timeframe, but also from archival and unpublished materials.³ Wannamaker shows how Tenney envisioned a theory of harmony that could be descriptive, measurable, and 'culturally/stylistically

3 The definition of Harmonic Space and the Harmonic Distance function are discussed in James Tenney, 'John Cage and the Theory of Harmony', in *Soundings 13: The Early Music of James Tenney*, ed. Peter Garland (Santa Fe, NM: Soundings Press, 1984), 55–83; the Consonance-Dissonance Complexes appear in James Tenney, *A History of 'Consonance' and 'Dissonance'* (New York: Excelsior, 1988). An excerpt from the latter and the entirety of the former are included in Tenney, *From Scratch*.

general', in Tenney's own words. Rather than telling a composer what to do (or not to do), Tenney strived for a framework that would offer a prediction of what may follow a given harmonic decision. Here the seeds planted during Tenney's brief but formative experience as an assistant to Partch at the University of Illinois germinate into perhaps the most robust and accessible intonational framework of the past hundred years, enabling the composer to put these ideas into practice in progressively more refined ways. Tenney's harmonic development is traced through analyses of pieces such as *Clang* (1972), *Spectral CANON for CONLON Nancarrow* (1974), the numerous entries in the *Harmonium* series (1976–82), through *Bridge* (1982–4), *Koan for String Quartet* (1984), and *Changes* (1985), Tenney's largest and most ambitious pieces to date. These are austere, intricate works, which like other tuning-centric pieces can elicit a reflexive flight response among audiences and scholars alike; yet Wannamaker presents them with disarming elegance, illustrating and demystifying the inner working of the music, and ultimately inviting us to partake of the sonic bounties these pieces offer.

The mid-1980s were for Tenney a period of great personal turmoil, as he lost first a lung and then his wife to cancer, and found himself caring for two young children as a single parent. Wannamaker connects this crisis to a break in Tenney's theoretical work, and suggests that much scholarship remains to be done investigating the composer's unpublished papers. From a compositional standpoint, though Tenney's output in his last two decades decreased (at least in terms of scope), he also benefited from an onrush of commissions following his appearance at the Darmstädter Ferienkurse in 1990, upon Cage's invitation. Wannamaker frames this late, renewed connection between Tenney and Cage as a reversal of influence: quoting excerpts from interviews as well as the opening lines from 'The Readymade Boomerang' mesostic, the author shows us how hearing Tenney's *Critical Band* (1988) prompted a change of heart in the elder composer regarding harmonic matters, eventually resulting in the notably more harmonious qualities of some of the *Number Pieces* (1987–92).

In the final chapters, Wannamaker covers some of Tenney's most striking music, highlighting how he translated Charles Seeger and Henry Cowell's model of Dissonant Counterpoint (and its practical implementations by Ruth Crawford Seeger and Ruggles) into his own 'statistical feedback' algorithm, and connecting these ideas with previous forays into controlling variance and similarity in his music, as previously encountered in Chapters 4 and 5.⁴ In his last piece, *Arbor Vitae* for string quartet (2006), completed with assistance from Michael Winter a mere two weeks before the composer's passing, Tenney returned to the framework of Harmonic Space, venturing further and higher into territories he had not previously reached.

As mentioned previously, Volume 2 is intended as a reference text, and therefore lacks the compelling through-narrative of the main text. The analyses therein, however, are just as compelling and thorough, and cover the remainder of Tenney's oeuvre from lesser-known pieces to major works, such as the remaining nine *Postal Pieces* and *Changes*; a favourite inclusion

4 For a history of the development of Dissonant Counterpoint, see John Spilker, 'The Origins of "Dissonant Counterpoint": Henry Cowell's Unpublished Notebook', *Journal of the Society of American Music* 5/4 (2011).

was the analysis of a heretofore unpublished justly tuned version of *Chromatic Canon* (1980/83), in which Tenney answers the long-standing question between dodecaphonic composition and just intonation with a whimsical ‘Why not both?’ While I anticipate returning to Volume 2 to consult Wannamaker’s analyses, or further my appreciation of an unfamiliar recording or performance, I consider Volume 1 to be an invaluable resource for any historian or theorist with even a passing interest in experimental music in the United States, tuning theories, electronic and algorithmic composition, and models of musical perception. As far as the topic of Tenney and his music, these books represent a thorough and comprehensive elucidation of how it developed over decades of intense, dedicated, and recursive work, highlighting recurring threads even when they lie buried deep into the resulting texture. Wannamaker’s prose is generally concise without being dry, and the numerous quotations from Tenney’s own published and archival writings, as well as some of his associates, contribute to making it an engaging and vivid read. Those readers who may feel intimidated by Tenney’s music and theoretical apparatus will find Wannamaker a stalwart and dependable guide, leading them towards unexpected and arresting aural vistas.

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