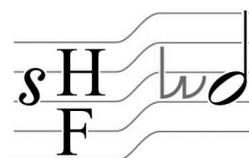


THIRTY-ONE
THE JOURNAL OF THE HUYGENS-FOKKER FOUNDATION



Stichting Huygens-Fokker
Centre for Microtonal Music
Muziekgebouw aan 't IJ
Piet Heinkade 5
1019 BR Amsterdam
The Netherlands
info@huygens-fokker.org
www.huygens-fokker.org

Thirty-One
Estd 2009
ISSN 1877-6949

thirty-one@huygens-fokker.org
www.thirty-one.eu

EDITOR
Bob Gilmore

DIRECTOR, HUYGENS-FOKKER FOUNDATION
Sander Germanus

CONTENTS
VOL.1 (SUMMER 2009)

EDITORIAL	4
Bob Gilmore	
MICRO-ACTUALITIES / MICROACTUALITEITEN	5
Sander Germanus	

COMPOSITION FORUM

HOW I BECAME A CONVERT: ON THE USE OF MICROTONALITY, TUNING & OVERTONE SYSTEMS IN MY RECENT WORK	8
Peter Adriaansz	
SOME THOUGHTS ON LINEAR MICROTONALITY	34
Frank Denyer	
KEY ECCENTRICITY IN BEN JOHNSTON'S SUITE FOR MICROTONAL PIANO	42
Kyle Gann	

THEORY FORUM

THE HUYGENS COMMA: SOME MATHEMATICS CONCERNING THE 31-CYCLE	49
Giorgio Dillon and Riccardo Musenich	

INSTRUMENT FORUM

TECHNISCHE ASPECTEN VAN HET 31-TOONS-ORGEL, 1950-2009	57
Cees van der Poel	

REVIEWS

REVIEW OF PATRIZIO BARBIERI: ENHARMONIC INSTRUMENTS AND MUSIC 1470-1900	61
Rudolf Rasch	
REVIEW OF BOZZINI QUARTET: ARBOR VITAE (JAMES TENNEY: QUATUORS + QUINTETTES)	66
Bob Gilmore	
NOTES ON CONTRIBUTORS	69

REVIEW OF BOZZINI QUARTET: ARBOR VITAE (JAMES TENNEY: QUATUORS + QUINTETTES)

Bob Gilmore

James Tenney, *Arbor Vitae*, *Saxony*, *Stochastic String Quartet*, *String Quartet in One Movement*, *Koan for string quartet*, *Cognate Canons*, *Diaphonic Study*, *Quintext*. Quatuor Bozzini (Clemens Merkel, Nadia Francavilla, Stéphanie Bozzini, Isabelle Bozzini) with Rick Sacks, percussion, Eve Egoan, piano, Miriam Shalinsky, double bass. CQB 0806, 2008. www.actuellecd.com.

Let's get the "review" out of the way first, so we can talk about the music. This two-CD set of quartets and quintets by the American composer James Tenney (1934-2006) is one of the finest recordings to have come my way recently, essential listening not only for anyone interested in Tenney's music or in microtonality in general, but for anyone wanting to understand some of the ways in which new music has developed in the past three or four decades. That's a weighty claim but I stand by it. Relatively little played for much of his lifetime, Tenney's music became better known only in the last dozen years of his life and now the ears of the new music world are wide open to it. With this new recording we have a Tenney release that offers superb performances of a collection of some of his finest, most individual works (here represented by *Quintext*, *Saxony*, and *Koan*) together with some tougher nuts that nonetheless prove tastier as time goes by (works like *Cognate Canons*, *Diaphonic Study*, and his last work, the string quartet *Arbor Vitae*). Previous fine Tenney discs have appeared (Marc Sabat and Stephen Clarke's recording of the violin and piano music on Hat Hut, the Barton Workshop's of the *Postal Pieces* on New World Records, among others), but for all the excellence of the playing these earlier discs have often tended to offer works from what feels to me like the periphery of Tenney's achievement rather than the centre. If you don't like the music on this Bozzini Quartet release, you can conclude that Tenney is just not for you. The Montreal-based Bozzinis have established themselves beyond question as one of the finest new music quartets on the scene, skilful and dedicated young players with a consistently adventurous approach to repertoire. Their performances here are never less than outstanding.

Tenney's explorations of microtonal tunings began in 1972, more than a decade after his brief and argument-filled "apprenticeship" with Harry Partch at the University of Illinois in 1959. Tenney's theoretical writings offer an expansion of many of Partch's tuning concepts, placing Partch's interest in extended just intonation ("extended" through the use of harmonies derived from the seventh and eleventh partials) in a broader conceptual framework that acknowledges the complexities of our perception of pitch and the sophisticated mechanisms our brain uses to process aural data. Not all of Tenney's post-1972 works employ just tuning, although most of them use harmonic relationships made possible by the expanded pitch world of microtonality – more specifically, through a particular navigation of that world by means of a pitch matrix that Tenney termed "harmonic space", which offers quantitative measures of "harmonic distance" between two or more pitches. These theoretical ideas, brought to sonorous life in his compositions, are described in his article "John Cage and the theory of harmony" – *Soundings 13: The Music of James Tenney*, ed. Peter Garland, pp. 55–83 (Santa Fe, NM: Soundings Press, 1984).

At the conceptually simpler end of Tenney's spectrum is a work like *Saxony* (1978), originally for saxophone with tape delay but heard here in one of its various possible incarnations, for string quartet with delay. This piece, like several others laced through his output, takes its

pitch material from a single harmonic series. The series is revealed gradually, in an ever-more-dense texture, with the delay system catching the long tones and phrases of the players and re-injecting them into the texture. Characteristically for Tenney, this music avoids drama or incident (more so than does much of the contemporaneous "spectral music" from France, with which it otherwise has several things in common) and offers instead a rich listening context in which the listener's perceptual experience seems to count for more than the decoding of any "message" from the composer. *Koan*, a 1984 reworking for string quartet of a much earlier solo violin piece, is a twenty-minute exercise in slowly moving string glissandi set against steady drone pitches. Conceptually elegant and perceptually engaging – if one is in the mood for it – the work can be a real challenge for many audiences not sympathetic to its particular sort of austerity. The Bozzinis play it superbly (with special praise due to violinist Clemens Merkel, who has to negotiate slow glissandi evenly and musically over long spans of time in a steady eighth-note rhythm continually crossing two strings).

For me the real gem of this set, and practically a textbook of Tenney techniques, is the 35-minute *Quintext*, never before recorded (and rarely, if ever, played complete). Subtitled "five textures for string quartet and bass", this dates from the all-important year 1972. The individual movements are: "Some Recent THOUGHTS for Morton Feldman", "CLOUDS for Iannis Xenakis", "A Choir of ANGELS for Carl Ruggles", "PARABOLAS and HYPERBOLAS for Edgard Varèse" and "SPECTRA for Harry Partch". As the subtitle indicates, each movement creates and sustains a texture without dramatic change of any kind, and each has a connection to the work of the composer invoked in its title – although Tenney's homage could never actually be mistaken for the music of the composer concerned. The first movement is a study in soft, sustained, non-developmental, dissonant vertical harmonies, an obsession in much of Feldman's early work (especially, perhaps, the *Vertical Thoughts* series, from which Tenney derived his title). However, in "Some recent THOUGHTS for Morton Feldman", the harmonies specified are microtonal, and tuned just intonation (using a scale of intervals analogous to the first 13 odd-number harmonics), one of Tenney's own obsessions, but a concept totally at odds with Feldman's devotion to equal temperament. The second movement is a tapestry of sound and silence, with the 'sound' sections being a homage to the string cluster textures of Xenakis's *Metastasis* and other works, albeit randomly derived. The third movement is a sort of textural parody of Ruggles's *Angels*, this time involving actual quotations of chords from Ruggles's score, though once again in just intonation; it is played *sul ponticello* throughout, invoking the muted brass of the original. The fourth movement, with its continual but irregular glissandi finally converging around middle C, evokes the parabolas and hyperbolas that Varèse wanted to create in sound by use of instruments like the siren; again, however, the movement is technically speaking almost antithetical to Varèse's own compositional methods, with its use of graphic notation and consequent degree of randomness. Finally, "SPECTRA for Harry Partch" proposes yet another sort of homage. In terms of its sonority and its compositional approach the piece is quite far from the sound of Partch's music, yet the complex scordatura that Tenney specifies for the strings yields music that uses the most complex fabric of just intervals he had so far employed (surpassing in complexity, thanks to its use of intervals derived from prime number partials as high as the thirteenth, the harmonic resources of Partch's own musical language).

The two other quintets on this disc are much later works. *Cognate Canons* (1993), which adds a percussionist to the quartet, is dedicated to Nancarrow, some of whose rhythmic techniques it employs. (Among his many other achievements Tenney was among the first to study the music of the long-neglected Nancarrow, contributing detailed liner notes to the recording of Nancarrow's *Studies for Player Piano* released by Wergo in the late 1980s.) Tenney gave me a cassette of *Cognate Canons* shortly after its premiere (by the Arditti Quartet and Robyn Schulkowsky), but it has taken me all these years to warm to it – here the persuasive playing of the Bozzinis and the sympathetic sound of the recording (by Hessischer Rundfunk in Frankfurt) do much to help a work whose material at first can seem rather anonymous and even stilted, its rhythms well calculated but not especially vibrant. The piano quintet *Diaphonic Study* is a thorny (and perhaps overly prolonged) exercise in dissonant counterpoint of the sort explored by Ruth Crawford and her husband Charles Seeger earlier in the 20th century, here recast in a microtonal tuning system. This work seems, at least initially, to resist straightforward aural comprehension in the way that *Saxony* or *Koan* positively revel in it,

although for those listeners prepared to invest the necessary time *Diaphonic Study* offers its own particular rewards.

The set also offers two early, short quartets – the *String Quartet in One Movement* of 1955 (a student piece; interesting, but to my ears not really more), and the *Stochastic String Quartet* of 1963, one of Tenney's (and the world's) first computer-generated compositions. While perhaps not especially engaging as a listening experience, the *Stochastic String Quartet* is representative of a way of working by means of which Tenney creates a field of musical experience mid-way between the architectural calculations of Xenakis and the intention-free indeterminacy of Cage. His last work, the string quartet *Arbor Vitae*, like the *Stochastic String Quartet* of more than forty years earlier, is also algorithmically derived, its expanding/contracting pitch range and increasing/decreasing temporal density having been worked out with the programming skills of the young composer Michael Winter during Tenney's last illness in the summer of 2006. It's a piece I found hard to make much sense of at first but, here again, repeated listenings reveal a world of sonic fascination and ever-more-audible structure. The Bozzinis commissioned *Arbor Vitae*, and their stunning recording of it and the seven other works on these discs is a monumental achievement, a fitting testimony to a composer whose real stature is becoming clearer with every year that passes.

If you are interested in reviewing CDs, books, websites or other material relevant to the aims of this journal, please contact the Editor at thirty-one@huygens-fokker.org.