Annotated Bibliography

As I state in my introduction, there is little mention of microtonal music in primary academic journals, and what exists often comprises only a brief *en passant* reference to microtonal music embedded within an article that deals primarily with a non-microtonal subject. Computer keyword searches and the standard database tools have not yet reached a level of sophistication at which they can easily find such passing references. In order to compile this bibliography, it was necessary to complete a thorough survey of *In Theory Only, The Indiana Theory Review, The Journal of Music Theory, Music Analysis, Music Theory Online, Music Theory Spectrum,* and *Perspectives of New Music* in an effort to discover relevant information on twentieth-century microtonal art music. I have deliberately excluded references dealing with ethnomusicology, "blue" notes, pitch perception, and historical tuning systems, as I believe these topics have, at best, a peripheral connection to this dissertation. I have included speculative mathematical articles if and only if I consider that they might be of interest to a microtonal researcher or composer. I also have included discussions of microtonal works and microtonal compositional philosophy even when they do not deal directly with analysis.

As far as I know, there are only three serious attempts at analysis of complete microtonal pieces, and these appear in three articles on Ben Johnston's string quartets: Randall Shinn on the *Fourth String Quartet*, John Fonville on the *Fifth String Quartet,* and Steven Elstler on the *Sixth String Quartet,* all of which are listed in the bibliography below.

Barbera, André. "Review of *Corpus Microtonale, Adriaan Daniël Fokker (1887-1972). Selected Musical Compositions (1948-1972)." Journal of Music Theory,* 33/2 (1989), 393-9.

Fokker's music employs 31-note equal temperament, a tuning derived from the work of earlier theorists such as Tartini. Book review has brief discussions of tuning and notation.

Blackwood, Easley. "Modes and Chord Progressions in Equal Tunings." *Perspectives of New Music* 29/2 (1991), 166-201.

Blackwood searches for microtonal intervals that can serve as analogues to the major and minor second intervals within the major scale, and he finds them in 15-, 16-, 17- and 19-note equal temperament.

Boatwright, Howard. "Ives' Quarter-Tone Impressions." *Perspectives of New Music,* 3/2 (1965), 22-31.

Exegesis of "Some Quarter-Tone Impressions" from Charles Ives's Essays Before a Sonata and Other Writings.

Canfield, David. "David Canfield Interviews John Eaton on his New Opera, *Danton and Robespierre." Indiana Theory Review* 1/3 (1978), 49-53.

Eaton's opera uses quarter-tones, sixth-tones, and microtonal tunings derived from just intonation. No analysis.

Carey, Norman and David Clampitt. "Aspects of Well-Formed Scales." *Music Theory Spectrum* 11/2 (1989), 187-206.

Well-formed scales can be found in 5, 7, 12, 17, 29, 41, and 53 equal divisions of the octave. 17-note and 53-note systems are of interest to some microtonal composers. This article examines the theoretical characteristics of well-formed scales and does not discuss their acoustic properties or potential compositional resources.

Childs, Barney. "Younger American Composers; Ben Johnston: Quintet for Groups." *Perspectives of New Music* 7/1 (1968), 110-21.

Performance issues, tuning of microtonal intervals. A few analytical comments, but not detailed.

Chislett, Laura. "*Sulle Scale Della Fenice:* Performer's Notebook." *Perspectives of New Music* 29/2 (1991), 94-9.

On performance issues in Dench's Sulle Scale Della Fenice, *a work for solo flute in 48-note equal temperament.*

Clough, John. "Diatonic Interval Cycles and Hierarchical Structure." *Perspectives of New Music,* 32/1 (1994), 228-53.

Although microtonal music is not the main topic of Clough's explorations, he does suggest that the article may have "some implications for the design of microtonal systems" (p. 228).

Clough, John, John Cuciurean, and Jack Douthett. "Hyperscales and the Generalized Tetrachord." *Journal of Music Theory* 41/1 (1997), 67-100.

The generalization extends to a variety of chromatic universes, with special attention paid to the Indian gramas *scale in the 22-note chromatic.*

Clough, John, Nora Engebretsen, and Jonathan Kochavi. "Scales, Sets, and Interval Cycles: A Taxonomy." *Music Theory Spectrum* 21/1 (1999), 74-104.

Considers the general properties of scales within a variety of chromatic universes. Microtonal considerations in this article are only incidental.

Cohn, Richard. "Neo-Riemannian Operations, Parsimonious Trichords, and Their *Tonnetz* Representations." *Journal of Music Theory* 41/1 (1997), 1-66.

Cohn generalizes Riemann's Tonnetz *and the structure of the consonant triad to fit any chromatic universe with cardinality evenly divisible by 3 (12, 15, 18…).*

Daniels, Arthur. "Microtonality and Mean-Tone Temperament in the Harmonic System of Francisco Salinas." Part 1 of 2. *Journal of Music Theory* 9/1 (1965), 2-51.

_____. "Microtonality and Mean-Tone Temperament in the Harmonic System of Francisco Salinas." Part 2 of 2. *Journal of Music Theory* 9/2 (1965), 234-80.

This article, in two parts, looks at Salinas's De musica libri septem *(1577). The word "microtonality" in the title does not refer to modern microtonal compositional practices; the article is about historical tuning systems.*

Dench, Chris. "*Sulle Scale Della Fenice:* Postscript." *Perspectives of New Music* 29/2 (1991), 100-5.

Comments by composer on his work Sulle Scale Della Fenice, *a work in 48-note equal temperament for solo flute. No technical discussions of pitch material.*

Eiseman, David, "George Ives as Theorist: Some Unpublished Documents." *Perspectives of New Music* 14/1 (1975), 139-47.

George Ives was Charles Ives's father. There is little here on quarter tones except for a passing reference to George Ives's question, "If the whole tones can be divided equally, why not half tones?" as reported by Charles Ives in Memos.

Elstler, Steven. "A Harmonic and Serial Analysis of Ben Johnston's *String Quartet No. 6." Perspectives of New Music* 29/2 (1991), 138-65.

One of the few microtonal analytical articles to be found anywhere. Discusses the use of Johnston's Extended Just Intonation in this quartet.

Ferneyhough, Brian. "Shattering the Vessels of Received Wisdom." Interview by James Boros. *Perspectives of New Music* 28/2 (1990), 6-51.

While not strictly a microtonal composer, Ferneyhough's music does include quarter-tone pitches as part of its complex design, as seen in various musical examples. However, there is no discussion of microtonal pitch in this interview.

Fonville, John. "Ben Johnston's Extended Just Intonation: A Guide for Interpreters." *Perspectives of New Music* 29/2 (1991), 106-37.

Discussion of theoretical foundations of Ben Johnston's Extended Just Intonation system, with a focus on interval ratios. The "interpreters" of the title are theorists and composers, not performers.

Gamer, Carlton. "Some Combinatorial Resources of Equal-Tempered Systems." *Journal of Music Theory* 11/1 (1967), 32-59.

Examines properties of various equal-tempered systems from 7 to 72 notes per octave. Defines and discusses "deep scale."

Gann, Kyle. "LaMonte Young's *The Well-Tuned Piano." Perspectives of New Music* 31/1 (1993), 134-63.

Comparisons and contrasts between Young's tuning system in The Well-Tuned Piano *and Ben Johnston's system of Extended Just Intonation.*

Gilmore, Bob. "Changing the Metaphor: Ratio Models of Musical Pitch in the Work of Harry Partch, Ben Johnston, and James Tenney." *Perspectives of New Music* 33/2 (1995), 458-503.

As the title suggests, Gilmore discusses tunings. Analyses of three short passages from works by Johnston and Tenney.

_____. "On Harry Partch's *Seventeen Lyrics by Li-Po.*" *Perspectives of New Music* 30/2 (1992), 22-59.

Analysis of a work for modified viola and voice in Partch's extended just intonation.

Herlinger, Jan. "Fractional Divisions of the Whole Tone." *Music Theory Spectrum* 3 (1981).

The article discusses Marchetto of Padua's five divisions of the whole tone. Although this article focuses on historical theory, Padua's divisions do find resonance with 20th-century composers who use 31-note equal temperament. See also Leedy (1991).

Hesse, Horst-Peter. "Breaking Into a New World of Sound: Reflections on the Kemelic Music of the Austrian Composer Franz Richter Herf (1920-89)." *Perspectives of New Music* 29/1 (1991), 212-35.

Explanation of Herf's duoseptuagesimal system (72-note equal-temperament).

Johnston, Ben, "Beyond Harry Partch." *Perspectives of New Music* 22/2 (1984), 223-32.

A polemical attempt by Johnston to distance himself from Partch. No technical discussions of microtonal music.

_____. "The Corporealism of Harry Partch." *Perspectives of New Music* 13/2 (1975), 85-97.

An In Memoriam *for Partch, who died in Fall 1974. Anecdotal, non-technical, informal discussion of pitch and custom-built microtonal instruments.*

_____. "Proportionality and Expanded Musical Pitch Relations." *Perspectives of New Music* 5/1 (1966), 112-20.

Discussion of diatonic (sic) comma. Johnston states a case for microtonally adjusted pitch classes to enliven 12-tone serialism (among other styles).

_____. "Scalar Order as a Compositional Resource." *Perspectives of New Music* 2/2 (1965), 56-76.

Johnston derives microtonal scales from the interval ratios of just intonation.

Keislar, Douglas. "Six American Composers on Non-Standard Tunings." *Perspectives of New Music* 29/1 (1991), 176-211.

Interviews with Easley Blackwood, John Eaton, Lew Harrison, Ben Johnston, Joel Mandelbaum, and William Schottstaedt. Interviews deal with aesthetic issues of interest to this dissertation: Eaton likes quarter tones, while Blackwood does not. Musical examples show notation of accidentals. No analysis.

Kraehenbuehl, David and Christopher Schmidt. "On the Development of Musical Systems." *Journal of Music Theory,* 6/1 (1962), 32-65.

Authors posit an historical development from 7-note diatonic to 12-note chromatic and invent an artificial procedure for deriving a 12-note system from 7. This procedure is applied recursively to derive a 22-note hyperchromatic and a 41-note ultrachromatic. The authors consider the feasibility of chromatic systems with more than 41 notes to the octave.

Leedy, Douglas. "A Venerable Temperament Rediscovered." *Perspectives of New Music* 29/2 (1991), 202-11.

A comparison of 1/4-comma meantone temperament and 31-note equal temperament. The two have much in common. See also Herlinger (1981).

Mackey, Steven. "It's Good to be Back." *Perspectives of New Music* 29/2 (1991), 482-3.

Score of a work for electric guitar composed in honour of Donald Martino's 60th birthday. The work uses quarter-tones.

Mandelbaum, Joel. "Toward the Expansion of Our Concepts of Intonation." *Perspectives of New Music* 13/1 (1974), 216-26.

Brief survey of writings by Regener, Fokker, and the journal Xenharmonikon. *Discussion of instrument building.*

Rapoport, Paul, "The Structural Relationships of Fifths and Thirds in Equal Temperaments." *Perspectives of New Music* 37/2 (1993), 351-90.

Looks at thirds and fifths and their nearest equivalents in equal-tempered systems as large as 284 notes to the octave.

Rasch, Rudolph. "Review of Gardner Read, *20th Century Microtonal Notation.*" *Perspectives of New Music* 29/1 (1991), 258-62.

A mixed review. Rasch says that Read's book, while not without merit, has its share of flaws.

Reiter, R. Burkhart. "Influences of the Arch Form in Relation to the Properties of Pitch Structure and Formal Design Found Within Krzysztof Penderecki's *Threnody to the Victims of Hiroshima." Music Theory Explorations and Applications* 6 (1997), 19-24.

A few short passing comments on the quarter-tone clusters in Threnody.

Roig-Francolí, Miguel A. "Harmonic and Formal Processes in Ligeti's Net-Structure Compositions." *Music Theory Spectrum* 17/2 (1995), 242-67.

Includes analysis of Ligeti's Ramifications, *a work for two string choirs tuned a quarter-tone apart. The microtonal aspects of this work are not discussed in detail: "Ligeti's intention was not to produce microtonal music but, rather, as he declared, 'mistuned music'" (p. 244).*

Shinn, Randall. "Ben Johnston's *Fourth String Quartet.*" *Perspectives of New Music* 15/2 (1977), 145-73.

Some analytical comments; notes on intonation, meter. Johnston is contrasted with Partch.

Sims, Ezra. "Reflections on This and That (Perhaps a Polemic)." *Perspectives of New Music* 29/1 (1991), 236-57.

Asks the question "What is *microtonal anyway?" and discusses extensions to the diatonic system.*

Stone, Kurt. "Problems and Methods of Notation." *Perspectives of New Music* 1/2 (1963), 9-31.

On p. 12, a brief discussion of possible microtonal accidentals, including Mauricio Kagel's preferred accidental signs.

Waterman, Ellen. "*Cassandra's Dream Song:* A Literary Feminist Perspective." *Perspectives of New Music* 32/2 (1994), 154-72.

Ferneyhough's work Cassandra's Dream Song *does contain quarter-tone accidentals, but they are not discussed here.*

Williams, David Russel. "Howard Hanson (1896-1981)." *Perspectives of New Music* 20/1 (1981), 12-25.

Reminisces from informal conversations with Hanson. Two paragraphs of interest on p. 17: one on Hanson's quarter-tone experiments and the other on "the future of microtonality."

Young, Gayle. "The Pitch Organization of *Harmonium for James Tenney.*" *Perspectives of New Music* 26/2 (1988), 204-13.

Describes microtonal system derived from interval ratios of 8:7 and 11:9, used in her own work Harmonium for James Tenney. *11:9 is 347.4 cents, approximating the equal-tempered neutral third (350.0 cents). No analysis.*

Zweifel, Paul F. "Generalized Diatonic and Pentatonic Scales: A Group-Theoretic Approach." *Perspectives of New Music* 34/1 (1996), 140-61.

Considers analogues of the major scale in pitch universes other than the familiar 12-note equal temperament. Zweifel particularly likes 20-note equal temperament.