

The ten string quartets of Ben Johnston are among the most fascinating collections of work ever produced by an American composer. And yet, like similarly imposing peaks in the American musical landscape—Ives's *Universe Symphony*, for example, or the *Studies for Player Piano* of Conlon Nancarrow—these works have, for decades now, remained more known about than known, more talked about than played. All the quartets have been performed in public (with one exception, the immensely difficult String Quartet No. 7), but only four have previously been recorded. The scores have been analyzed by musicologists and theorists fascinated by their fusion of advanced compositional techniques (serialism with just intonation, for example; microtonality with a kind of neoclassical revisionism), but they have been too little heard. The Kepler Quartet's recordings—this disc is the first of a series of three, prepared with Johnston's active support and supervision—offer lively and scrupulously accurate readings that unlock the door to these marvelous pieces. Like Ives and Nancarrow before him, there is the sense that Johnston's time has finally come.

Ben Johnston was born in Macon, Georgia, in 1926. His interest in music showed itself early on, and he began piano lessons at the age of six. When he was eleven the family relocated to Richmond, Virginia, where he continued his studies and, at the age of thirteen, began to compose. By the age of seventeen he had already produced enough pieces to mount a whole Sunday afternoon concert of his music at Richmond's College of William and Mary; prophetically, from our point of view, a feature on the young Johnston in the Richmond *Times Dispatch* quotes him as looking forward to a musical future in which "there will be new instruments with new tones and overtones." Later that year, with war raging, he entered the Navy and was sent to the Navy School of Music in Washington, D.C., where he studied analysis, harmony, counterpoint, orchestration for dance bands, and pursued studies of piano and trombone. Personal and medical problems curtailed this activity; in 1947 he returned to Virginia for undergraduate study at the College of William and Mary, graduating in 1949. He then studied for a Masters degree at the Cincinnati Conservatory of Music.

During his year in Cincinnati one of Johnston's teachers showed him a book that was profoundly to reshape the course of his musical life: Harry Partch's *Genesis of a Music*, the classic account of the work of the visionary American composer, theorist and instrument builder, the first edition of which had then just been published. Johnston was fascinated by Partch's rejection of equal temperament and the whole instrumentarium of Western music; and he read avidly his description of his "new" system of just intonation (taken out to microtonal lengths to yield an expandable source scale of more than forty divisions of the octave) and its application in the tuning of his newly invented instruments. It was not the first time Johnston had been inspired by the science of music. When only twelve he had been taken by a family friend to a lecture at Wesleyan College in Macon on the relationship of Debussy's music to the acoustic theories of Helmholtz, which made a big impression. It is no exaggeration to say that much of Johnston's career has been, as he himself has written, an attempt "to connect Debussy and Partch, to complete the revolution [begun in earlier twentieth-century music, of realigning music and acoustics] and connect it with a redefinition of older values."¹ Johnston has never shared Partch's anti-establishment stance and has worked all his career to bring Partch's theoretical ideas closer to the mainstream of contemporary music, where they have exerted a fruitful influence.

Johnston studied with (or, as he prefers more accurately to say, was apprenticed to) Partch for a six-month period in 1950–51 in Gualala, in Northern California.² Thereafter he studied at Mills College with Darius Milhaud and, later in the 1950s, privately with John Cage. (Although neoclassicism, microtonality, and chance techniques all find an integral place in Johnston's output, none of his music sounds much like that of any of these three illustrious mentors.) In 1951 he began teaching at the University of Illinois at Urbana-Champaign, where he remained for more than thirty years. He has always fought against the tendency toward ivory-towerism of the tenured professor; in being close to but always somewhat apart from most of the main directions in American composition in the second half of the twentieth century, he perhaps resembles composers of his generation such as Robert Erickson, Kenneth Gaburo, Roger Reynolds, or Alvin Lucier, all of whose careers were, like his, forged in a university milieu, but whose unorthodox music has always operated freely from the fashions and constraints of mainstream musical developments.

It is the use of extended just intonation, surpassing in complexity even the work of Harry Partch, that has most strongly characterized Johnston's mature musical output. It was to be nearly ten years after his apprenticeship with Partch before these studies bore fruit and then, strangely, in a work for piano (but a microtonally retuned one), the *Sonata for Microtonal*

¹ Johnston, "A.S.U.C. Keynote Address," in *Perspectives of New Music* 26, no. 1 (1988), 236–42; reprinted in Johnston, *Maximum Clarity and other writings on music* (see Bibliography).

² Johnston can be heard as a performer of Partch's music on *The Harry Partch Collection Vol.1*, New World Records 80621-2, performing various instruments in the recording of Partch's *Eleven Intrusions*.

Piano of 1960–64.³ Just intonation is a system of tuning by pure intervals (i.e., without beats), intervals equivalent to the relationships of the harmonic series. Johnston's music from 1960 onward abandons what he sees as the compromise of equal temperament, where all the intervals in the chromatic scale are distorted—some slightly, some considerably—from their pure form. Equal temperament, which gained universality in Western music really only in the early nineteenth century, has its pros and cons. The gain is that all the semitones are the same size, so that useable major and minor scales can be built from all twelve pitches, and one can modulate freely from key to key; but the disadvantage, as Johnston has pointed out, is that equal temperament is a closed system and therefore finite in its resources—and those resources, he feels, had reached exhaustion point by the early twentieth century and could not be expanded further. (One recalls Schoenberg's ominous remark in his *Harmonielehre* of 1911 that “continued evolution of the theory of harmony is not to be expected at present”).⁴

String Quartet No. 2, the earliest of the works recorded here, was completed in November 1964, and was composed in a relatively short period of time in a burst of energy following the completion of years of work on the *Sonata for Microtonal Piano*. It was premiered by the Composers Quartet on July 14, 1966. At a time when a great many avant-garde composers both in the United States and Europe were turning their attention to noise, electronic music, and chance, Johnston's achievement in this work is to create music that is radical in its exploration of the harmonic possibilities of a greatly expanded pitch domain. (Even rhythm and tempo in this work are sometimes derived by analogy to the pitch intervals.) The piece is microtonal throughout; this is less easy to hear in the first movement because of the wide leaps in the melodic lines, but in the second and third movements both microtonally-altered intervals and actual microtones are clearly audible in the harmony.

String Quartet No. 2 is based on a 53-note just intonation scale built from chains of perfect fifths and chains of major thirds (Johnston, following Partch, calls this a “5-limit tuning”). Because the intervals are pure and not tempered, the number of pitches in the octave is correspondingly larger. The chain of major thirds, for example, extends upward from C to E to G-sharp (and beyond), and downward from C to A-flat to F-flat (and beyond). In equal-tempered tuning E and F-flat would be the same pitch, as would G-sharp and A-flat, but here they are different: This segment of the chain of thirds, then, has five different pitches, whereas in an equal-tempered equivalent there would be only three (plus two octave duplicates). The microtonality that results from this approach to scale derivation is in fact a by-product of tuning by pure intervals. In the first movement Johnston uses a twelve-note row, a procedure that may seem almost anachronistic in this expanded pitch world; but the row is subjected to microtonal transposition as the movement progresses, and the resulting sound-world, which Johnston has characterised as “shifting and iridescent,” sounds nothing like the serial music of the 1960s. The beautiful second movement, marked “Intimate, spacious,” is considerably different in mood and technique. Because of the use of mostly consonant intervals and “diatonic” dissonances, albeit linked harmonically by unusual microtonal intervals, Johnston creates music that, as he has said, is “far closer in sound to Gesualdo than to Bach.” The calm of this movement is shattered in the finale, which contains more violent extremes than anything else in the piece—at the midpoint of the movement the music reaches a state of almost unbearable intensity. (This third movement is a palindrome, becoming a retrograde inversion of itself half way through.) The intensity of this music in fact reflects Johnston's feelings about the era in which it was created. “If contemporary music produces images of tension and anxiety (and worse states),” he wrote in a 1963 article, “we cannot deny it is holding up a mirror. . . . A habitual psychological state of high tension such as contemporary life tends to produce is a matter for serious concern. Art can help us by bringing to recognition, analyzing and making intelligible the complex patterns of these tensions. To extend musical order further into the jungle of randomness and complexity . . . that is perhaps the fundamental aim of contemporary serious music.”⁵

The single-movement **String Quartet No. 3**, composed in the winter of 1966, continues Johnston's search for intelligibility within complexity. Like its predecessor this work was also produced in a short, concentrated period following the completion of a large work, in this case the orchestra piece *Quintet for Groups*. The music uses the same 53-tone scale as does his Second Quartet, although the perceived level of pitch complexity is less because of the generally more sparse

³ Johnston's *Sonata for Microtonal Piano*, performed by Robert Miller, was originally released on the New World Records LP *Sound Forms for Piano*, NW 203, in 1976, and reissued on CD (80203-2) in 1995.

⁴ Arnold Schoenberg, *Theory of Harmony*, translated by Roy E. Carter (Berkeley: University of California Press, 1978), 389.

⁵ Johnston, “Musical Intelligibility: Where Are We?,” in *Maximum Clarity and other writings on music* (see Bibliography).

textures of the Third Quartet. Once again Johnston works with his own highly distinctive variant of serial technique; the basic row is subjected not only to conventional serial manipulation but also to retuning and to a form of microtonal embellishment that preserves, but inflects, its inner structure. String Quartet No. 3 is an expressive piece, sectional in form, with unpredictable changes of mood and texture. Once it was complete Johnston put it aside for a while, feeling that it perhaps needed a second movement. In the end the work had to wait ten years for its premiere; and its “second movement,” when it came, represented a radical departure from the sound-world of both this quartet and of most of his music of the 1960s.

The late 1960s and early 1970s were years of enormous change for America and for the world, and Johnston’s work took some surprising twists and turns in this period. He made a brief foray into tape music and into indeterminacy; and he wrote a number of articles and conference papers that ask searching questions about the nature and relevance of contemporary composition, calling for a less elitist and more humanistic approach. These writings, “On Context,” “How to Cook an Albatross,” “Art and Survival,” and others, collected in *Maximum Clarity and other writings on music*, do not signal an abandonment of his theoretical work in tuning theory, but concern themselves with broader issues of which his theoretical work is but one part. They present disturbing recurrent images—of the chaos of modern life and the necessity of building a bridge over the chasm—and hint at “a private season in hell” which reflects Johnston’s personal experience in these years. In the early 1970s, as Johnston’s music began to explore harmonies derived from the higher partials of the harmonic series (the 7th, and later the 11th and 13th), a new and apparently contradictory impulse began to manifest itself: a desire to have the music speak clearly and to be intelligible to a wide audience, particularly to listeners who had no particular investment in avant-garde music. The most compelling instance of this is **String Quartet No. 4**, composed in 1973, a set of variations on the hymn “Amazing Grace.” The quartet traverses three different tunings in its eleven-minute span, all of them forms of just intonation: Pythagorean tuning (based entirely on chains of pure fifths), triadic just intonation (based on pure fifths and pure major thirds), and an experimental form of extended just intonation using, in addition to pure fifths and thirds, intervals derived from the seventh partial of the overtone series (a narrow minor 7th quite different from its equal-tempered equivalent). From this pitch world, partly familiar and partly unfamiliar, and in a rhythmic language of great complexity employing proportional rhythms and metric modulations, the piece creates an impression of unified beauty. Thanks to recordings by the Fine Arts Quartet and later by the Kronos Quartet, String Quartet No. 4 has become Johnston’s best-known composition.

Despite their dissimilarities, the Third and Fourth Quartets seemed to Johnston to form a pair. They were premiered this way by the Concord Quartet at New York’s Alice Tully Hall on March 15, 1976 (the composer’s fiftieth birthday), under the title *Crossings*. Although either work can stand on its own, the pairing—as can be heard on this CD—is indeed suggestive and deeply moving. In this formation, String Quartet No. 3 acquires the title “Verging,” and is separated by “The Silence” (an obligatory structural silence of between sixty and one hundred and twenty seconds) from String Quartet No. 4, entitled in this pairing “The Ascent.” Johnston has written of this composite work:

Crossings is a traverse, a transformation/journey from one leaf of a diptych to the other, from one rim of a canyon to the other, from one quartet to another. One is invited to try which pairings the work-as-perceived will accept: old world/new world? international style/world music? serial emphasis/proportional emphasis? personal/transpersonal? The philosophical game is still more challenging when only one leaf of the diptych is contemplated, when only one half of the mapping is known. String Quartet No. 3, issuing into silence, asks us an urgent question. And what is the question?

One may equally well consider *Crossings* a triptych, since *The Silence*, the middle movement, is a more than merely pregnant pause, but constitutes a tenuous and breathless traverse of a ridge or bridge between two opposite canyon walls, the nether the post-Viennese expressionist ethos, submitted to the liberating but at the same time strait-jacketing abolition of twelve-tone equal temperament in favor of ultra-chromatic microtonal just intonation; the farther the deceptively simple and direct-seeming American folk hymn “Amazing Grace,” generating variations of steadily increasing rhythmic and microtonal profusion, always securely grounded in new-old once more frontier-fresh modal tonality capable of wide proportional spaces: new reaches of consonance and metrical intricacy which push the boundaries of intelligible complexity beyond horizons conceivable in the confines of conventional tuning. This is the world of String Quartet No. 4, *The Ascent*.

The remaining work on this disc is **String Quartet No. 9**, completed in the summer of 1988, and premiered and first recorded by the Stanford Quartet. Much had happened in Johnston's music in the fifteen years since String Quartet No. 4; the next CD in the Kepler Quartet's series will let us hear some of those changes. Johnston had taken early retirement from the University of Illinois in 1983 and, a few years later, relocated to Rocky Mount, North Carolina, where the Ninth Quartet was written. What he calls the "humanizing" impulse behind the Fourth Quartet has intensified in his more recent music, and has become linked to a new and quite conscious immersion in earlier classical idioms. The impulse behind this is not a nostalgic one, nor is it a naïve form of postmodernism, but rather it is the exploration of a tantalizing prospect: how European music might have developed had it been freed of the constraints of equal temperament. This re-conception of earlier musical idioms in terms of extended just intonation is a form of musical revisionism, distinct in technique and intent from the neoclassicism of his earlier, pre-just intonation works. String Quartet No. 9 is an attractive four-movement piece that plays out aspects of this scenario. This is especially clear in the third movement, a lyrical and fully Classical slow movement that invokes Haydn, but with melodic embellishments that are not possible in the language of the great Austrian composer. The scherzo-like second movement perhaps suggests shades of Mendelssohn, but opens up his idiom to new harmonic adventures made possible by just intonation. The energetic finale is harder to link to any specific older style, but is nonetheless still classical in impulse (with perhaps a hint of a jazz walking bass). But the most extraordinary movement is surely the first, where Johnston achieves a real compositional tour de force in creating a six-minute movement, the pitch world of which remains entirely between middle C and the C an octave above and yet retains our interest throughout. Here the richness of just intonation, with its luminous pure intervals and their microtonal variants, lets us hear as never before one of Western music's most familiar clichés: the C major scale. Like all of Johnston's best music, this movement looks both backward (to a musical heritage that he feels is still vital in our contemporary world) and forward, to a world of new sounds and untried harmonies that will continue to engage us as his compositional achievement becomes better known.

—Bob Gilmore

Bob Gilmore is the author of *Harry Partch: A Biography* (Yale University Press, 1998) and has recently edited a collection of Ben Johnston's writings, *Maximum Clarity and other writings on music*.

Ben Johnston's music has reached a wide and diverse audience, both at home and abroad, without compromising its high seriousness or its depth of philosophic purpose. Born in Macon, Georgia, in 1926, Johnston studied at the College of William and Mary in Richmond, Virginia, the Cincinnati Conservatory of Music, and Mills College; his teachers include Darius Milhaud, Harry Partch, and John Cage. From 1951–83 he taught theory and composition at the University of Illinois at Urbana-Champaign, where he now holds the title of Emeritus Professor of Music. His large body of compositions includes opera and music-theatre, music for dance, orchestral and chamber works, choral and solo vocal works, piano music, tape pieces, and indeterminate works.

Johnston's music shows the confluence of several traditions of music-making that have flourished within the United States. In the 1950s his output was characterized by the neoclassicism of his teacher Milhaud; works like his *Septet* or the dance work *Gambit* are successful essays in this idiom. In the 1960s he explored serial techniques and, at the end of the decade, indeterminacy. From 1960 onward the overriding technical preoccupation of his music has been its use of just intonation, the tuning system of the music of ancient cultures as well as that of many living traditions worldwide. Johnston is a pioneer in the use of microtones and non-tempered tuning, rationalizing and going beyond Harry Partch's achievements in this domain. His earliest works of this sort to gain attention were the *Sonata for Microtonal Piano* and the String Quartet No. 2. In the 1970s he became increasingly concerned with harnessing his musical energies to the service of a deeply felt humanitarian urge to communicate with audiences much broader than those within the contemporary music world. Works like his String Quartet No. 4, championed by the Kronos Quartet, and his song-cycle *Calamity Jane to her Daughter*, championed by vocalist Dora Ohrenstein, have brought his music to a wide audience.

Among the honors he has received are a Guggenheim Fellowship, and grants from the National Council on the Arts and the Humanities and the National Endowment for the Arts. Since 1987, he has resided in Rocky Mount, North Carolina, with his wife, Betty.

The **Kepler Quartet** was formed in response to the enthusiastic audience and critics' reception of their world-premiere performance of Ben Johnston's String Quartet No. 10 in April of 2002. Violinists Sharan Leventhal and Eric Segnitz, violist Brek Renzelman and cellist Karl Lavine found working together under Mr. Johnston's guidance so positive an

experience that it eventually culminated in a Johnston 10-string quartet cycle recording project. The composer's steadfast belief in his system, and his generous confidence that the quartet could understand and achieve his musical aims were key factors in the success of this recording. For further information, please visit www.keplerquartet.com

SELECTED DISCOGRAPHY

Calamity Jane and Her Daughter. Dora Ohrenstein, soprano. CRI CD 654.

Carmilla. E.T.C. Company of La Mama. Vanguard VSD-79322. (LP)

Casta Bertram. Bertram Turetzky, contrabass; tape. Nonesuch H 71237. (LP)

Ci-Git Satie. New Music Choral Ensemble, Kenneth Gaburo, conductor. Ars Nova/Ars Antiqua AN 1005. (LP)

Ponder Nothing. Includes *Septet*, *Three Chinese Lyrics*, *Gambit*, *Five Fragments*, *Trio*, and *Ponder Nothing*. Music Amici. New World Records 80432-2.

Sonata for Microtonal Piano. Robert Miller. New World Records 80203-2.

Sonnets of Desolation. New Swingle Singers. CRI SD 515. (LP)

String Quartet No. 6. New World Quartet. CRI SD 497. (LP)

Suite for Microtonal Piano. Phillip Bush. Koch International Classics 7369.

SELECTED BIBLIOGRAPHY

Childs, Barney. "Ben Johnston's Quintet for Groups." *Perspectives of New Music* VII/I (1968), 110–120.

Gilmore, Bob. "Changing the metaphor: ratio models of musical pitch in the work of Harry Partch, Ben Johnston, and James Tenney," in *Perspectives of New Music* 33, nos. 1–2 (Winter-Summer 1995), 458–503.

Johnston, Ben. *Maximum Clarity and other writings on music* (edited with an Introduction by Bob Gilmore). Urbana and Chicago: University of Illinois Press, 2006.

Shinn, Randall. "Ben Johnston's Fourth String Quartet," *Perspectives of New Music* 15, no. 2 (Spring-Summer 1977), 145–73.

Von Gunden, Heidi. *The Music of Ben Johnston*. Metuchen: The Scarecrow Press Inc., 1986.

Producer: Eric Segnitz

Engineer: Ric Probst, Remote Planet, Milwaukee, WI

Production assistance: John Tanner, Steve Kultgen, Sean Corkum, Steve Comeau, Bill Stace

Midi realizations: Andy Stefik

Digital mastering: Paul Zinman, SoundByte Productions, NYC

String Quartet No. 4 was recorded July 29, 2002. String Quartet No. 2 was recorded December 18, 2003, and October 3, 2005. String Quartet No. 9 was recorded September 6, 2004. String Quartet No. 3 was recorded June 22, 2005. All works were recorded at the Miramar Theatre, Milwaukee, Wisconsin.

Cover art: Excerpt from String Quartet No. 2, courtesy of Smith Publications.

Cover design: Bob Defrin Design, Inc.

This recording was made possible by grants from The Aaron Copland Fund for Music and the Francis Goelet Charitable Lead Trust.

The quartet would like to thank The Aaron Copland Fund for Music, the American Music Center, the Wisconsin Composer's Alliance and Present Music, as well as the following individuals for their patience and support: Karen Boe, Edith and William Burns, Steven Cornelius, David Drexler, Wendy Gannett, Bob Gilmore, Betty Johnston, Connie Lavine, Elaine and Howard Leventhal, [kudos to] Ric Probst, Mary and Gary Renzelman, Kim Robertson, Sylvia Smith, Bill Stace, Andy Stefik, Kevin Stalheim, John Tanner, and, of course, Ben Johnston, for creating such magnificent music.

FOR NEW WORLD RECORDS:

Herman E. Krawitz, President; Lisa Kahlden, Director of Information Technology; Paul M. Tai, Director of Artists and Repertory; Mojisola Oké, Bookkeeper; Dan Parratt, Production Associate.

RECORDED ANTHOLOGY OF AMERICAN MUSIC, INC., BOARD OF TRUSTEES:

Richard Aspinwall; Milton Babbitt; John Lee Carroll; Thomas Teige Carroll; Emanuel Gerard; David Hamilton; Rita Hauser; Lisa Kahlden; Herman E. Krawitz; Robert Marx; Arthur Moorhead; Elizabeth Ostrow; Cynthia Parker; Larry Polansky; Don Roberts; Marilyn Shapiro; Patrick Smith; Frank Stanton; Paul M. Tai.

Francis Goelet (1926–1998), Chairman

© & © 2006 Recorded Anthology of American Music, Inc. All rights reserved. Printed in U.S.A.

BEN JOHNSTON (b. 1926)

STRING QUARTETS NOS. 2, 3, 4, AND 9

KEPLER QUARTET

80637-2

String Quartet No. 9 (1988)

- | | |
|-------------------------|------|
| 1. Strong, calm, slow | 6:18 |
| 2. Fast, elated | 3:39 |
| 3. Slow, expressive | 4:08 |
| 4. Vigorous and defiant | 5:46 |

Crossings

- | | |
|---|-------|
| 5. <i>Verging</i> , String Quartet No. 3 (1966) | 11:10 |
| 6. <i>The Silence</i> | 1:38 |
| 7. <i>The Ascent</i> , String Quartet No. 4, "Amazing Grace" (1973) | 10:29 |

String Quartet No. 2 (1964)

- | | |
|--|------|
| 8. Light and quick: with grace and humor | 4:33 |
| 9. Intimate, spacious | 4:56 |
| 10. Extremely minute and intense; not fast | 7:34 |

Kepler Quartet: Sharan Leventhal, violin I; Eric Segnitz, violin II; Brek Renzelman, viola; Karl Lavine, cello

All compositions published by Smith Publications.

TT 60:46

© & © 2006 Recorded Anthology of American Music, Inc. All rights reserved. Printed in U.S.A.

NO PART OF THIS RECORDING MAY BE COPIED OR REPRODUCED WITHOUT WRITTEN PERMISSION OF R.A.A.M., INC.

NEW WORLD RECORDS
16 Penn Plaza #835
NEW YORK, NY 10001-1820
TEL 212.290-1680 FAX 212.290-1685
Website: www.newworldrecords.org
email: info@newworldrecords.org

LINER NOTES © Recorded Anthology of American Music, Inc.