JOHN MELBY

Concerto for Violin, English Horn and Computer-Synthesized Tape

Gregory Fulkerson, violin
Thomas Stacy, English horn
David Liptak, conductor

JAMES TENNEY

Saxony

David Mott, saxophone

John Melby was born in 1941 in Whitehall, Wisconsin; he was educated at the Curtis Institute of Music, the University of Pennsylvania and Princeton University, which awarded him a Ph.D. in Composition in 1972. His composition teachers included Vincent Persichetti, Henry Weinberg, George Crumb, Peter Westergaard, J.K. Randall and Milton Babbitt. Melby's music, especially those works for computer-synthesized tape, both with and without live performers, has been performed widely. He is the recipient of many awards, including a Guggenheim Fellowship, First Prize in the 1979 International Electroacoustic Music Awards in Bourges, France, and the Academy-Institute Award from the American Academy and Institute of Arts and Letters. Melby is currently Professor of Music at the University of Illinois at Urbana-Champaign.

Melby's works may be heard on CRI recordings: SD 310, *91 Plus 5 for Brass Quintet and Computer* performed by the Contemporary Brass Quintet, Roman Pawlowski, conductor and on SD 364, *Two Stevens Songs*, performed by Phyllis Bryn-Julson, soprano.

Notes on the Music

"My *Concerto for Violin, English Horn and Computer-Synthesized Tape* is one in an ongoing series of concerti for instruments and tape. Others in this series include concerti for violin, cello, viola, flute, piano and English horn. These compositions all share several points in common: they are all in one extended movement, each one has a cadenza designed to extend the development of the thematic material which has occurred earlier in the piece, and all of them are modelled to a certain extent on the late 19th century concerto, although the pitch and rhythmic materials as well as the timbral characteristics are certainly very much of the 20th century. This composition was written for Gregory Fulkerson under the auspices of a Guggenheim Fellowship during 1983 and 1984. The tape part was realized on an IBM 4341 digital computer at the University of Illinois at Urbana-Champaign, using the MUSIC360 language for digital sound synthesis. Digital/analog conversion took place at the Department of Speech and Hearing Science at the University.

The combination of live voices or instruments with tape has interested me for many years, beginning with my now withdrawn opera *Quietus*, written in 1968-70, and continuing through a large number of pieces, culminating with this concerto series. Such a combination (live-plus-tape) presents its own set of problems, different from those that a composer deals with in writing for soloist and orchestra. Most notable of these is the fact that at least up until the present, an electronic accompaniment has been rhythmically inflexible, making it necessary for the soloist to follow it, rather than the other way around (as in a traditional concerto, for example). This problem has been solved by some composers by writing music in which it does not matter whether or not the performer and tape are together except at certain important structural points. In my music, since the soloist is, most of the time, structurally integrated with the tape, synchronization is of the utmost importance. Therefore, the tape part in one of my pieces is often much more precisely notated than may be usual. The degree of control necessary in making a tape of the sort that allows this to happen is one of the chief attractions that the computer holds for me, since I can specify durations and attack patterns very much more precisely than it would be possible to do in an analog studio. I am also fascinated by the way in which the computer can perform certain transformational procedures which fit very well into my basically Schenker-derived method of composition.

As a composer, I have a certain aversion to providing program notes about my pieces, a feeling which is shared by many, although certainly not all, of my colleagues. I feel that such notes often do more harm than good, since they sometimes predispose the listener to certain modes of listening which are inappropriate to the content of the work. Therefore, I would ask the listener, if possible, to disregard what I or anyone else may have to say about the piece and just listen, which, after all, is all that any composer can ask of his or her audience."

—John Melby

Gregory Fulkerson, violin, has enjoyed a flourishing career as a recitalist and concerto soloist since winning the 1980 International American Music Competition at the Kennedy Center—the first violinist to win this competition. Fulkerson has toured extensively in the United States and abroad, appearing with, among others, the orchestras of Cincinnati, Milwaukee, Sacramento and Chattanooga. He has also performed with the American Symphony Orchestra in Carnegie Hall, and in 1986 he debuts with the Philadelphia Orchestra, conducted by Ricardo Muti, in the premiere of Richard Wernick's *Violin Concerto*.

A pioneer of contemporary music for violin as well as an eloquent exponent of the standard repertoire, Fulkerson has discovered and given the world premieres of concerti by Roy Harris and John Becker (the former has been recorded with the Louisville Orchestra). He has recorded solo works of Copland, Ornstein, Glass and Wernick, as well as chamber pieces with the Marlboro Festival and the New York New Music Ensemble. He was Artist-in-Residence at the Festival of New American Music (1983) at California State University in Sacramento, and is a regularly featured guest at the Grand Teton Festival. Presently on the faculty of Oberlin College, Fulkerson has been profiled in the *Grove's Dictionary* American Music Supplement. This recording marks his debut on CRI.

Thomas Stacy, English horn, has been heard as a guest soloist with many orchestras, including the National Symphony, the Minnesota Orchestra and in over 40 appearances with the New York Philharmonic, where he is resident English hornist. A native of Arkansas, Stacy graduated with distinction from the Eastman School of Music. He has demonstrated several oboe family members on National Public Radio's "All Things Considered." Composers such as Persichetti, Skrowaczewski, Noon, Hampton, Farberman, Roseman, Hodkinson, Caltabiano, Deak and Blake have written works especially for Stacy, many of which he has recorded on the Spectrum, Desto and Grenadilla labels. This record presents his debut on CRI.

David Liptak, composer and pianist, is a member of the composition faculty of the University of Illinois. He studied at the Eastman School of Music with Samuel

Adler, Warren Benson, Eugene Katz and Joseph Schwantner, receiving his D.M.A. in composition in 1976. His compositions cover a wide range of instrumentation; his works are published by Dorn Publishers and the American Composers Alliance. At Illinois, Liptak directs the Contemporary Chamber Players, a professional ensemble that performs new music from Illinois and elsewhere.

James Tenney was born in 1934 in Silver City, New Mexico, and grew up in Arizona and Colorado, where he received his earliest musical training as a pianist and composer. He attended the University of Denver, the Juilliard School of Music, Bennington College (B.A. 1958) and the University of Illinois, where he received his Masters Degree in 1961. His teachers have included Eduard Steuermann, Chou Wen-Chung, Lionel Nowak, Carl Ruggles, Lejaren Hiller, Kenneth Gaburo and Edgard Varèse. In the early 1960's he was active in the field of electronic and computer music, working with Max Mathews at the Bell Telephone Laboratories in the development of programs for computer sound generation and composition. Long active as a performer and theorist as well as a composer, Tenney was co-founder and conductor of the "Tone Roads Chamber Ensemble" in New York (1963-70), and has performed with the ensembles of Harry Partch ("The Bewitched" 1960), John Cage, Steve Reich and Philip Glass. He has composed some 70 works for a variety of media, and is the author of numerous articles on acoustics, computer music, musical form and perception. He has received grants and awards from the National Science Foundation, the National Endowment for the Arts, the Ontario Arts Council, the American Academy and Institute of Arts and Letters, and the Fromm Foundation. He has taught at the Polytechnic Institute of Brooklyn, the California Institute of the Arts, and the University of California. Tenney is currently Professor of Music at York University in Toronto. This recording marks the debut of his work on CRI.

Notes on the Music

Saxony: a fine soft woolen fabric—*Webster's New Collegiate Dictionary*

"The score of *Saxony* specifies a temporal sequence of 'available pitches' to be used by the player as the basis for improvisation. This improvisation may be quite free rhythmically, expressively, even stylistically, but it is completely controlled, harmonically, by the fact that pitches given are those of the first 32 harmonic partials of a low E♭. A cumulative tape-delay system is used to create both a rich vertical sonority and a complex polyphonic texture via canonic replications of the player's melodic improvisation. The piece was commissioned by the Ontario Arts Council and first performed by Don MacMillan in 1978."
—James Tenney

David Mott is a saxophonist/composer known for his use of extended instrumental techniques through both his performances and his compositions. He frequently tours both the United States and Canada as a soloist on the baritone saxophone. Having taught at the Yale School of Music, where he received his advanced degrees, Mott now teaches performance and composition at York University in Toronto, Canada.

This record was made possible by a grant from the American Academy and Institute of Arts and Letters. Four cash awards and a CRI recording are given annually to honor and encourage promising composers and to help them continue their creative work. James Tenney was a winner in 1982; John Melby was a winner in 1984.

Melby: *Concerto for Violin, English Horn and Computer-Synthesized Tape*, (20'53"), American Composers Alliance (BMI)
Produced and edited by John Melby
Recorded by Rex Anderson
Recorded at the Great Hall, Krannert Center for the Performing Arts, University of Illinois at Urbana-Champaign, September 20, 1985.

Tenney: *Saxony* (23'40"), Smith Publications/Sonic Arts Editions (BMI)
Produced and edited by James Tenney
Recorded by Paul Hodge
Recorded at The Music Gallery, Toronto, May 1984.

This is a composer-supervised recording.

Art Direction and Cover Design: Laura Williams
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COMPUTER MUSIC

LEJAREN HILLER and ROBERT BAKER

COMPUTER CANTATA (1963)
University of Illinois Contemporary Chamber Players
Helen Hamm, soprano; Jack McKenzie, conductor

JOHN MELBY

91 PLUS 5 (1971) for Brass Quintet and Computer
Contemporary Brass Quintet (Elin Frazier, Daniel Orlock, Edward Curenton, Robert Moore, Jonathan Dornblum) conducted by Roman Pawlowski

The two pieces on this record represent the two major ways in which computers are used to create music. The first, COMPUTER CANTATA, is one of the earliest attempts to use it to create a composition. The second, 91 PLUS 5, is a recent example of its use to turn a composition that exists on paper into audible sound.

LEJAREN HILLER (b. New York, 1924) studied piano with Harvey Brown, oboe with Joseph Marx, and composition with Harvey Officer, Milton Babbitt, Roger Sessions and Hubert Kessler. He attended Princeton University, B.A. (1944), M.A. (1946), PhD. (1947) majoring in chemistry, minoring in music. He also obtained a M. Mus. degree from the University of Illinois (1958). He worked for E. I. duPont de Nemours as a research chemist in synthetic fibers and polymers (1947-1952) and in the Chemistry Department of the University of Illinois (1952-1958).

All the while, he composed music in many media. In 1958, he organized the Experimental Music Studio of the University of Illinois. From 1958 to 1968, he was Professor of Music, Director of this Studio and Co-Director of the University of Illinois Contemporary Chamber Players.

In 1968, he became the first permanent Frederick B. Slee Professor of Music at the State University of New York at Buffalo with an adjunct appointment as Professor of Computer Science. At Buffalo, he is also Co-Director, with Lukas Foss, of the Center of the Creative and Performing Arts, widely known for its "Evenings for New Music."

Hiller started experimenting with the ILLIAC computer at the University of Illinois in 1957 and, with the help of it and Leonard Isaacson, created a composition for string quartet called the *Illiac Suite.* The discoveries made then led to further work with computers, and another work called COMPUTER CANTATA. Both of these were originally released on the Heliodor label. The composer writes:

"In 1962, Robert Baker and I started MUSICOMP and the COMPUTER CANTATA. MUSICOMP was an expandable set of programs for composition that was written in SCATRE (an IBM-7094 assembly language) and to a lesser extent in FORTRAN. It consisted of three basic groups of routines: (a) system regulatory routines that set up format, data input and output, a choice order code, instrument ranges and playing limitations, and other book-keeping chores; (b) compositional sub-routines, of which some 50 to 60 eventually became operational, and (c) special output routines that provided data for sound synthesis.

"Obviously, the compositional subroutines were the heart of the matter because they provided the composer with statements that control the successive selections of notes, rhythms, phrases, and so forth. A few of the subroutines included procedures such as generating tone rows, generating chords, generating rhythmic groups,

choice of rest or play, and matching like rhythms. These and the other subroutines were derived from both traditional and speculative compositional techniques and can be exploited in both deterministic or probabilistic contexts depending on their user's preferences.

"We wrote the COMPUTER CANTATA in 1963 to illustrate what we could do with the relatively few subroutines we had at that time.

"The five main strophes are stochastic settings of five successive approximations of spoken English. These texts were generated by Professors Hultzén, Allen, and Miron of the University of Illinois as an experiment in speech research. The music is correlated to these texts and goes from a state of great disorder in Strophe I to some degree of order by Strophe V. The Prologs and Epilogs, in contrast to the Strophes themselves, are concerned with rhythmic organization for percussion, total serialism and scales of 9 to 15 tones per octave realized by a simple sound synthesis scheme devised for the CSX-1 computer. We deliberately left this synthetic sound crude.

"Much nonsense has been written about computers 'thinking' and 'creating'. After all, a computer is really nothing more than a complex array of hardware. It can be tremendously useful hardware, however, but only if you know the limitations of programming logic and how to ask sensible and precisely formulated questions.

"Should a person listen to this piece as he might 'ordinary music'? Yes, I think, but with this important qualification: It is much more didactic than expressive compared to most music. This piece is truly experimental because it is concerned with revealing process as well as being final product. It is an embodiment of objective research results. It is a laboratory notebook. Sometimes the results surprise us because a compositional routine seemed less effective than expected, sometimes more so. If I had deleted everything that disturbed me esthetically, I would have falsified the research record. So, at that time, my objective in composing music by means of computer programming was not the immediate realization of an esthetic unity, but the providing and evaluation of techniques whereby this goal could eventually be realized."

Since composing the COMPUTER CANTATA in 1963, Hiller has continued to write other compositions with computers as well as by other more traditional means. More recent computer compositions include *Algorithms 1 for 9 Instruments and Tape* (1968), *HPSCHD* (1968), composed in collaboration with John Cage, and *Algorithms II for 9 Instruments and Tape* (1972), composed in collaboration with Ravi Kumra.

JOHN MELBY was born in 1941 in Whitehall, Wisconsin. He received his Diploma and Bachelor of Music degree from the Curtis Institute of Music, M.A. in composition from the University of Pennsylvania, and M.F.A. and Ph.D. in composition from Princeton University. His composition teachers have been Henry Weinberg, George Crumb, Milton Babbitt, Peter Westergaard, and J. K. Randall. He has done extensive work in the area of computer-performed music; his *Forandrer: Seven Variations for Digital Computer* (1969-70) was performed on the Tenth Anniversary Concerts of the Columbia-Princeton Electronic Music Center in New York in 1970.

The composer writes about his music:

"91 PLUS 5 (the title refers to nothing more than the fact that the piece is scored for an electronic tape realized on an IBM 360/91 digital computer and five brass instruments) is a composition in nine sections which combine to form one continuous movement. The first through eighth sections form a large arch-form, with the first related to the eighth, the second to the seventh, etc. The ninth section serves as a 'coda.' Each pair of related sections emphasizes a different aspect of the basic rhythmic/pitch materials. In addition, the related sections correspond in terms of tempo relationships, 'timbral' considerations, etc.

"Composers who make use of digital computers in their pieces can be divided into two general categories: 1) those who use the computer as an aid to composition and 2) those for whom the computer serves as an incredibly flexible performing medium. My use of the computer falls into the latter class. In 91 PLUS 5 (and in all my other works for digital computer, either in combination with live performers or alone), the computer is programmed to produce a digital tape that contains a series of numbers which, when changed through the digital-to-analog conversion process, produce fluctuating voltages. These voltages, when recorded on an ordinary magnetic tape and amplified, produce musical sounds. Thus, while the computer is actively involved in the performance of the work, it is not involved in the compositional process. The great precision inherent in computer performance makes it possible to produce effects (such as accurate rendering of passages in simultaneous different tempi) which are impossible, or at best very difficult to achieve, with live instrumentalists. In addition, the unlimited 'timbral' possibilities offer much room for experimentation. In the case of 91 PLUS 5, I have purposely limited myself to relatively simple sounds in the computer part; this is due to a desire to obtain sounds which contrast with the 'richness' of the harmonic spectra of the brasses.

"91 PLUS 5 was composed in late 1970 and early 1971. The computer tape was realized, using the MUSIC360 sound synthesis program written by Barry Vercoe, at the Princeton University Computer Center, with digital-to-analog conversion at Bell Laboratories, Murray Hill, New Jersey. The composition was first performed in April of 1972, by the performers on this record, at the National Conference of the American Society of University Composers in Baltimore, Maryland."

ROMAN PAWLOWSKI is both a conductor and a composer. At age 29, he has been gaining a reputation in the Philadelphia area as a rather versatile conductor. Thoroughly at home with the standard choral and orchestral literature, he is also a specialist in the avant-garde. Currently he is the chairman of the music department of a private school in the Philadelphia area.

The Contemporary Brass Quintet was originally formed in 1965. Since that time, the group has performed numerous Young Audience concerts and adult community concerts throughout the East Coast area. The members are all graduates of various well-known music schools. They have all performed in symphony orchestras and ballet and opera orchestras and are also free-lance recording artists.

COMPUTER CANTATA was originally released on the Heliodor label. It is re-released under CRI's ongoing policy of making available music of historic interest, with the assistance of the Alice M. Ditson Fund of Columbia University.

Produced by Carter Harman

Cover photo by John Urban

Hiller - Presser (ASCAP): 24 min.

Melby - MS:20 min.

LC#'s: Hiller 73-750249; Melby 73-750250

INTERNATIONAL ELECTRONIC MUSIC

This record contains fine examples of three different types of electronic music: "pure" synthesized sounds (Perera), natural sounds modified by electronic processing (Johnson and Grippe), and sounds created by a computer (Melby). Both the Melby and Johnson pieces require that a live performer combine real time performance with that of the tape.

JOHN MELBY

TWO STEVENS SONGS (1975) for Soprano and Computer-Synthesized Tape

Phyllis Bryn-Julson, soprano

Tape part computed at the Digital Computing Laboratory, University of Illinois and converted at the Godfrey Winham Laboratory, Princeton University

JOHN MELBY (b. 1941 Whitehall, Wis.) received a Bachelor of Music degree from the Curtis Institute of Music; he studied composition at the University of Pennsylvania (M.A.) with Henry Weinberg and George Crumb, and at Princeton University (M.F.A., Ph.D.), with Peter Westergaard, J.K. Randall, and Milton Babbitt. In addition to many pieces composed either for computer-synthesized tape alone or the combination of live performers with computer-generated sound, his output includes piano music, string quartets, songs, and music for various other chamber-music and orchestral combinations. In 1976 he was Professor of Music at the University of Illinois at Urbana-Champaign. His *91 PLUS 5* appears on CRI SD 310. The composer writes:

"The poetry of Wallace Stevens lends itself particularly well to musical settings; one need only recall the many settings of what is probably his best-known poem, *Thirteen Ways of Looking at a Blackbird* (Allan Blank's setting is on CRI SD 250). The reason for the great degree of compatibilty between Stevens' poetry and music may have something to do with the ambiguity present in most of his poems, many of which can be interpreted in rather fundamentally different ways, all of which may be reasonable and equally valid approaches. This aspect of Stevens' work has attracted me for a number of years. The TWO STEVENS SONGS constitute the first in a projected series of compositions based on Stevens texts and written for various voice ranges. TWO STEVENS SONGS was written especially for Phyllis Bryn-Julson."

A POSTCARD FROM THE VOLCANO
Children picking up our bones
Will never know that these were once
As quick as foxes on the hill;

And that in autumn, when the grapes
Made sharp air sharper by their smell
These had a being, breathing frost;

And least will guess that with our bones
We left much more, left what still is
The look of things, left what we felt

At what we saw. The spring clouds blow
Above the shuttered mansion-house,
Beyond our gate and the windy sky

Cries out a literate despair.
We knew for long the mansion's look
And what we said became

A part of what it is . . . Children
Still weaving budded aureoles,
Will speak our speech and never know,

Will say of the mansion that it seems
As if he that lived there left behind
A spirit storming in blank walls,

A dirty house in a gutted world,
A tatter of shadows peaked to white,
Smeared with the gold of the opulent sun.

DOMINATION OF BLACK
At night, by the fire,
The colors of the bushes
And of the fallen leaves,
Repeating themselves,
Turned in the room,
Like the leaves themselves
Turning in the wind.
Yes: but the color of the heavy hemlocks
Came striding.
And I remembered the cry of the peacocks.
The colors of their tails
Were like the leaves themselves
Turning in the wind,
In the twilight wind.
They swept over the room,
Just as they flew from the boughs of the hemlocks
Down to the ground.
I heard them cry – the peacocks.
Was it a cry against the twilight
Or against the leaves themselves
Turning in the wind,
Turning as the flames
Turned in the fire,
Turning as the tails of the peacocks
Turned in the loud fire,
Loud as the hemlocks
Full of the cry of the peacocks?
Or was it a cry against the hemlocks?

Out of the window,
I saw how the planets gathered
Like the leaves themselves
Turning in the wind.
I saw how the night came,
Came striding like the color of the heavy hemlocks
I felt afraid.
And I remembered the cry of the peacocks.

RONALD PERERA

ALTERNATE ROUTES (1971)

Realized at the Bregman Electronic Music Studio, Dartmouth College

RONALD PERERA (b. Boston, 1941) received both A.B. and M.A. degrees in music from Harvard, where he studied composition principally with Leon Kirchner. In 1967, on a travelling fellowship from Harvard, he studied electronic music and computer composition with Gottfried Michael Koenig at the University of Utrecht. He was three times awarded Harvard University's Francis Boott Prize in choral composition, and has received awards or commissions from the Paderewski Fund, the American Society of Composers, Authors and Publishers, the Goethe Institute, and the National Endowment for the Arts. He taught at Syracuse University and Dartmouth College before joining the faculty of Smith College in 1971, where he is an Associate Professor of Music and director of the electronic music studio. He has written works for both conventional and electronic media, seven of which are published by the E.C. Schirmer Music Company, and is co-editor of *The Development and Practice of Electronic Music*, published by Prentice-Hall. The composer writes:

"ALTERNATE ROUTES was composed in 1971 at the Bregman Electronic Music Studio, Dartmouth College, for dancer/choreographer Alison Becker Chase, who was then directing the newly formed Dartmouth Dance Company. From the start of the composition I conceived of all the sounds as having kinetic properties: wild spins and runs versus infinitely delicate and subtle departures from complete stillness. The shape of the piece evolved as a tension between these opposing ideas of movement and the music alternates between two materials: one densely percussive, the other fragile and transparent.

"Another kind of alternation involved here has to do with a device on the synthesizer known as the electronic switch, which can route an input signal back and forth between two outputs. When an audio signal is alternately routed to two different speakers at a speed approaching an audio rate (around twenty times a second), a strange shimmering effect is created. This shimmering is a characteristic of the lighter of the two materials in the piece. All of the sounds are electronic in origin, and were produced on a Moog synthesizer."

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