

NEIL B. ROLNICK

(b. 1947)

- 1** *Sanctus* (1990) (19:02)
computer generated tape
- 2** *Balkanization* (1988) (10:08)
for MIDI performance system
Performed by Neil B. Rolnick
- 3** *ReRebong* (1989) (8:48)
for gamelan instruments and real-time digital processing
Performed by members of the *Gamelan Son of Lion*
(Barbara Benary, David Demnitz, Nick Didkovsky,
and Daniel Goode) with Neil B. Rolnick
- 4** *Macedonian AirDrumming* (1990) (8:10)
for MIDI performance system and AirDrums
Performed by Neil B. Rolnick

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Total Time: 46:41

Notes by Neil B. Rolnick

I recall going through Yugoslav customs in September 1989, trying to explain that the Macintosh computer among my boxes of synthesizers and samplers was a musical instrument I performed on in concerts. I don't think they believed me, but they let me bring the Mac into the country anyway. I have similar continuing problems with my insurance company, which tries to avoid insuring my computer on the same policy which covers my other musical instruments when I tour.

Despite the official skepticism, the computer really is my main axe. To me, an instrument is a device which extends your ability to make the music in your soul audible to others. It necessarily has got to allow you to perform, to improvise, to play with other performers. And it has to have enough of a personality to provide you with interesting company for a musical life's journey. Since the late 1970's I've been giving concerts, recording, and teaching with various kinds of computers, and the pieces on this disk represent some of the musical territory the computer and I have traveled together recently. *Sanctus* was composed as a film score, and although I performed it live for the sound track, it is the only one of the pieces I don't regularly perform in concert. *Balkanization* makes use of the computer as a partner in improvisation. *ReRebong* uses special musical computers (digital effects devices) to alter the sounds of a small Javanese gamelan orchestra. And *Macedonian AirDrumming* uses a special device which allows me to create and shape sound by moving my hands and arms through the air.

And although these pieces all make use of slightly different configurations of electronic and computer equipment, they are really all per-

formed using the same instrument—a system of computers and computer based synthesizers, samplers and processors which are all commercially available, and all used regularly in rock and commercial music. It's an instrument which is inexpensive enough for me to own, which is small enough for me to have in my home to practice on daily, which is portable enough for me to travel with for concerts, which is flexible and expressive enough for me to perform on, and which is simple enough for me to do all of this without a tribe of technicians following me around. Perhaps the most exciting and challenging feature of this instrument is the fact that it is growing, like a child, towards a maturity that still seems distant. As new modules and computer systems are developed and make older parts of the system seem obsolete, I have to learn and grow with the new technology, and my music has to adapt to new possibilities.

1 When I first saw the rough cut of material for Barbara Hammer's film *Sanctus*, it struck me as a uniquely strange, beautiful, and disturbing visual experience. The film is composed entirely of images of x-ray movies originally produced by Dr. James Sibley Watson, and then recomposed and processed by Barbara Hammer. What you see is x-ray footage of skeletons walking, drinking, putting on lipstick. The moving skeletons are spooky: they're the traditional death's heads, and at the same time provide a view that looks so far into the body that we actually see its inner workings. It seemed to me that the film looked at the body in a way which was both mysterious and holy.

Musically, I created a parallel with Barbara's re-composition of Watson's visual material: the entire score is created from recordings

of excerpts of *Sanctus* movements from masses by Machaut, Byrd, Bach, Mozart, Beethoven, and Verdi. The choral and orchestral materials were digitally recorded on the Macintosh and in my sampler, and then were played back as an accompaniment for the film.

A feature of both the film and the music is a curious handmade quality in a technologically slick and polished medium. In the music, this is manifested as some of the obvious juxtapositions and splices—some rough edges where one music meets another. To me, these rough edges are an important part of the music: where the aesthetic of commercial recording mandates that technology should make the surface of the music slick and seamless, I would rather be able to hear some of the artifacts of the creative process. To edit these artifacts out would be a little like removing Glenn Gould's sing-along accompaniment to his early recording of the Goldberg Variations—it might make a more "perfect" performance, but it would diminish the musical quality of the recording.

2 *Balkanization* takes as its basic materials several traditional Balkan folk songs. I was initially introduced to this music in the late 1970's by my sister, who sang in the Danica Choral Ensemble which specialized in Balkan women's choral music. I was immediately impressed by the unique beauty of the music, with its florid and highly embellished melodic sense, its use of drones to create striking harmonies, and the propulsive effect of unexpected metrical arrangements. In it I heard musical elements which I presume to be very old, and which call to mind a variety of musical cultures.



SANCTUS (still from 16mm film by Barbara Hammer © 1990)

The vocal embellishments seem related to Middle Eastern and North African music; there are irregular waltz-like instrumental pieces; and pieces with triplet-based rhythms against sustained drones which sound strikingly similar to the organum of Perotin, written for the Cathedral of Notre Dame in the 12th century.

Historically, balkanization refers to the nationalistic division of the Balkan peninsula in southeastern Europe into many small,

antagonistic states in the years preceding World War I. For this piece, I have taken several very brief excerpts of traditional village music from Bulgaria and Yugoslavia, and have separated, put them into various levels of conflict, and have finally tried to reconcile them as much as possible. The tape from which I have taken the excerpts which form the basis of *Balkanization* was compiled by my sister from materials she collected on a trip to Yugoslavia and Bulgaria in the late 1970's, and includes the *Danica Choral Ensemble* singing the folk songs *Sefteli* and *Moma Bega Prez Livade*.

Unlike *Sanctus*, *Balkanization* is specifically written for live performance, and I have performed it dozens of times in concerts throughout the U.S. and Europe. In performance, I control my MIDI equipment (sampler and synthesizers) from a MIDI keyboard and a Macintosh computer. Using the program M, I have programmed the computer to improvise along with me, playing variations of the sampled folk songs *Sefteli* and *Moma Bega Prez Livade* on the synthesizers. The ability to use the computer and the MIDI equipment in improvisation is an important element in all of my performance pieces. Unlike early computer music which was generally recorded directly to tape, this music is never rigidly fixed, but is always changing from performance to performance. As a performer, this keeps the music alive and evolving for me, allowing me to continuously explore and expand upon my musical material.

3 *ReRebong* takes yet another approach to the use of "found" musical materials. Rather than sampling my basic material directly into the computer (*Sanctus*) or into a sampler (*Balkanization*), the material

was transcribed and re-arranged for the gamelan instruments to perform live, to be amplified and processed in concert. In this piece, the basic material comes from the Balinese shadow puppet piece *Rebong*, which I learned while studying gender wayang in the summer of 1979 with Balinese master musician I Wayan Suwece. The instrumental parts for *ReRebong* are comprised of varied and evolving textures which are derived from the version of *Rebong* which I had learned ten years before. The instruments are all amplified and their sounds are routed through three Yamaha SPX90II digital signal processors. The devices are programmed with different delay and transposition effects which are tuned to the 5-tone *slendro* scale of the Javanese style instruments of the Gamelan Son of Lion.

The fact that all of the electronic sounds heard in *ReRebong* are generated in real time by the gamelan instruments as they are played in concert results in a sound which is clearly a gamelan, but which is also clearly electronic. This kind of acoustically generated computer music performance produces a sense of life and liveliness which is all too often missing from computer controlled and sequenced electronic performances. Since the electronic sounds are all acoustically derived from the instruments themselves, it is like a musical walk through the distorted images in a funhouse hall of mirrors. Here the musical result depends upon the interplay of the acoustic instruments and their electronic shadows. So perhaps *ReRebong* is its own kind of computer generated musical shadow play.

4 *Macedonian AirDrumming* is another solo performance piece using

musical sources from the Balkan peninsula. In the fall of 1989, I spent four months in Yugoslavia on a Fulbright Fellowship, touring the country and performing concerts of my music, both alone and with various combinations of local musicians. While on this trip my interest in the traditional music of the region, which I had earlier explored in *Balkanization*, was rekindled and deepened. In particular, I had a wonderful experience in Skopje, the capitol of Macedonia, where following my own concert, my hosts delighted me with an impromptu concert of their own traditional music which lasted into the early morning hours.

Back at my home base in Belgrade, I was given a recording of some of this traditional Macedonian music by the ethnomusicologist Dragoslav Devic, and it is from this recording that I took the samples for *Macedonian AirDrumming*. The samples include rhythmic patterns and melodic fragments played by a Macedonian drum (*tapán*), flute (*duduk*), and fiddle (*cemene*). The samples are stored in an Ensoniq EPS 16-Plus sampler, and the Macintosh computer is programmed with Vision software to direct MIDI information to the sampler and synthesizers from a special MIDI controller called AirDrums.

The AirDrums, made by Palmtree Instruments in California, is a control interface which consists of two velocity-sensitive handheld wands, connected to a programmable "brain". This controller permits me to use the movements of my hands in the air to generate MIDI information which is interpreted and translated by the Macintosh to play samples and trigger sequences of synthesized and sampled sounds. The AirDrums provide me with a whole new set of physical gestures to transduce into musical gestures.

The most obvious gesture mapping is to simply play drum sounds by making drumming movements of my hands, which I do at the very end of the piece. But the problem of composing physical gestures which make sense as a performer for triggering and controlling complex melodies and textures led me to design a number of interesting combinations of sounds and movements which have evolved as I have toured and performed the piece.

One of the questions which comes up time and again as I perform these pieces, is the problem of the relationship between my music and the musical quotes and samples on which my pieces are based. In the early 1980's, when I began working with inexpensive sampling technology, I was fascinated from the outset by the possibility of composing with the large-scale manipulation of musical phrases of the music which makes up our musical environment. It seems to me that a major feature of our contemporary world is the previously unimaginable mix of musics which are available, broadcast, and distributed throughout the world. Taking samples of this musical *pot pourri* as the raw material for my own musical explorations seems natural and relevant.

I've always tried to use musical source materials which have some special meaning to me, and for which I feel a special affection. And I've been attracted to music which seems, on some level, to exist in a musical world apart from the slick and high-tech possibilities of computer music. However, I've also felt some nervousness about how my musical manipulations might be interpreted by audiences who identify with the original music which I've taken as my source. Would they be offended? Could this be some kind of aesthetic slumming? A kind of musical imperialism?

I got a chance to experience this situation directly during my extended stay in Yugoslavia. Although it had been my interest in the traditional music of the area which had initially prompted me to make the trip, when I was faced with the first concert in which I was to play *Balkanization* for a Yugoslav audience I was truly afraid that people would be offended and insulted by my use of *their* music. In that concert, as in all the concerts I gave during that four month period, I found that just the opposite was true. To my delight, the quotations from traditional Yugoslav music seemed to provide a point of access to my music for audiences who had never heard computer music before. They could hear their own familiar tunes in my pieces, and they could hear and follow the transformations of the familiar material as it was altered and processed through the computer. Over and over again, Yugoslavian audiences told me that of all my works, their favorite was *Balkanization*. I can only assume that they heard the respect and love for their music which I tried to put into my composition and performance.

RECORDING AND TECHNICAL INFORMATION

Sanctus was realized at Wittenberg Studio, Bearsville, NY; at the iEAR Studios at Rensselaer Polytechnic Institute, Troy, NY; and at the studios of the California Institute of the Arts, Valencia, CA. The piece uses a Macintosh Ix computer with SoundTools hardware and software, and OpCode StudioVision software to coordinate the Mac with an Ensoniq EPS 16-Plus sampler. The recording was made 10/13/90 by the composer at the iEAR Studios.

Balkanization was performed by the composer and recorded by Mike Rose at Wittenberg Studio 8/12/91. The piece is performed from a MIDI keyboard, with a Macintosh computer with "M" software controlling a Prophet 2002 sampler, and Yamaha TX802 and Roland D110 synthesizers.

ReRebong was performed by members of Gamelan Son of Lion (Barbara Benary, David Demnitz, Nick Didkovsky, and Daniel Goode) with the composer performing live processing on three Yamaha SPX90II digital effects devices. The recording was made by Rob Simmon at the Rensselaer Chapel & Cultural Center, Troy, NY on 2/19/91, and was edited by the composer at the iEAR Studios.

Macedonian AirDrumming was performed by the composer and recorded by Mike Rose at Wittenberg Studio 8/12/91. The piece is performed using AirDrums MIDI controllers, made by Palmtree Instruments, and a Macintosh computer with Vision software, controlling an Ensoniq EPS 16-Plus sampler and Yamaha D110 synthesizers.

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ACKNOWLEDGMENTS

The cover photo is by Mirosław Rogala, from a videotaped and digitally processed performance of *Macedonian AirDrumming* at The Kitchen, New York City, 5/31/91.

Rear cover photo is by Gisela Gamper.

The picture on page 6 is from the film *Sanctus* by Barbara Hammer. The film is available for sale or rental, in either 16mm film or video formats, at the following addresses:

Barbara Hammer
55 Bethune St. #114G
New York, NY 10014

Sanctus Films
872 Sanchez St.
San Francisco, CA 94114

Canyon Cinema
2325 3rd St., Suite 328
San Francisco, CA 94107

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Bridge Records, Inc.
GPO Box 1864
New York, NY 10116

NEIL B. ROLNICK

Neil Rolnick has been active as a composer and performer of computer music since the late 1970s. He performs on a portable computer music system, and concertizes regularly in a wide variety of contexts throughout North America and Europe. He has appeared as featured soloist with ensembles such as The California E.A.R. Unit, Relâche, Gerard Schwarz's Music Today Ensemble, Musical Elements, Gamelan Son of Lion, and the Albany Symphony Orchestra. He has collaborated with video artist John Sturgeon on a videotape which was shown nationally on the PBS "New Television" series, with filmmaker Sandy Moore in a film/performance installation at the Whitney Museum in New York City, and with filmmaker Barbara Hammer on the film *Sanctus*, which was recently purchased for the collection of the Museum of Modern Art in New York City. He is currently working on a new chamber work for the California E.A.R. Unit, and on a MediaOpera with theater director Travis Preston and the Private Theater in New York City.

In recent years Mr. Rolnick has toured extensively, with performances in New York City, San Francisco, Amsterdam, Washington, Reykjavik, Zurich, Los Angeles, Vancouver, Toronto, Belgrade, Zagreb, Sarajevo and numerous other venues throughout the U.S. and Europe. His music has been included in the 1985, 1986, and 1990 New Music America Festivals in Los Angeles, Houston, and Montreal; and in the 1985 Biennial Exhibition at the Whitney Museum. Previous recordings of Mr. Rolnick's music have been released on the Nonesuch, Centaur, CRI and 1750 Arch labels. His instrumental music is published by Highgate Press/E.C. Schirmer in Boston, MA. He has received fellowships and grants from the Fulbright Commission, the National Endow-

ment for the Arts, the New York State Council on the Arts, New York State CAPS, the Alice M. Ditson Fund, the MacDowell Colony, Yaddo, the University of California, and Rensselaer Polytechnic Institute.

Neil Rolnick currently teaches and is Director of the iEAR Studios at Rensselaer Polytechnic Institute in Troy, NY. At Rensselaer he has been responsible for the creation of a unique new Master of Fine Arts program in Electronic Arts, which focuses on a truly integrated approach to time-based art and performance with the electronic media.

