

**PAUL DRESHER &
NED ROTHENBERG
Opposites Attract**

New World Records 80411

THE TRUE STORY It is with great satisfaction that we write these notes as the final part of a compositional saga, the evolution of which we could never have foreseen at its inception. This project was unusual for us in many ways, most notably in the length of time (4 1/2 years) during which we worked and reworked the material, and in the number of incarnations that resulted from these efforts. The development of the music was closely linked to a parallel evolution in music technology, particularly in digital sampling, sound processing, and computer-driven music sequencers. From the outset, the project was conceived as a marriage between two contrasting elements, the unique qualities of acoustic instrumental and improvised performance, and the detailed control, precision, and new compositional possibilities offered by rapidly evolving technology. If we have succeeded, this recording will evoke a kind of musical techno-primitivism, a hybrid, utilizing the tools of sophisticated technology to amplify and reshape the rawness, energy, and wonder at the qualities of sound which are at the root of, and the inspiration for, this music.

We met in 1983 on a shared program at New Music America in Washington, D.C. In spite of the radically contrasting surface qualities of our respective musics, it was evident that we shared many deeper sensibilities, and we thought it would be exciting to work together. The opportunity arose in 1986 when we spent a week working with a specialized loop system (see description below), preparing a tape composition for the Margaret Jenkins Dance Company.

By the end of the week we decided that there was much more potential in our collaboration than had been explored in that brief period, and we agreed to continue meeting with the goal of producing a recording. In the spring of 1987 we created more loops and samples and began the rather complicated process of mapping the form and progression of the record. In a recording studio, we laid our basic loops to a 24 track recorder and recorded percussion parts with Gene Reffkin. In July we took the project to New York City where, working closely with acoustic bassist Mark Dreser, electric bass guitarist Anthony Jackson, and drummers Bobby Previte and Samm Bennett, we created and recorded the remaining basic tracks.

In evaluating these sessions, two significant and related problems became evident. Each loop was totally autonomous; it was virtually impossible to link or integrate one with another because of differences in tempo, harmony, or tuning. In addition, although they were interesting in themselves, the loops were static, and limited our compositional freedom.

The solution did not become available (or affordable) until 1989, when advances in sampling technology made it possible for us to sample each track of each loop and then reconstruct the loops using a computer/sequencer. However, the greatest asset of this new technology turned out to be not the replication of what we had already created, but instead, the ability to fragment, transform, and reconstruct our material. A good example of this is in "Finale," where materials from four different loops are layered against each other. In addition to enabling us to integrate the diverse material, sampling gave us the option of playing with the loop material in a constantly varying fashion, and allowing it to interact more effectively with the live instrumental parts.

In the Spring of 1989 an invitation from New Music of America to perform the project at the Brooklyn Academy of Music's Next Wave Festival provided the impetus to realize the solution. We embarked on the lengthy process of sampling all the loops, editing the samples, writing basic sequences, and then reconstructing and integrating all the material into a more cohesive whole. Over the course of two weeks, we composed a single continuous 45-minute work that transformed and linked all the original loop material, and developed more clearly our conception of the live non-sequenced parts. We assembled a band consisting of the two of us, Mark Helias on acoustic and electric bass, Samm Bennett on percussion, and Richard Eisenstein on sampler keyboards and a computer-controlled sampler.

After the performances at BAM and the Guggenheim Museum (and with considerable consternation regarding the difficulties of performing live with a sequencer) we returned to the process of making the record, fortunately now with funding from the Mary Flagler Cary Charitable Trust. While the piece we created for the live performance formed the basis of this next incarnation, we reworked the material yet again, breaking the single continuous work into individual movements and composed new material, including "Skronk," the sounds of which consist of short fragments from the loops. We entered Home Base Studio in July, 1990 and, working closely with engineer Drew Milano, were able to integrate our favorite performances from the 1987 sessions with the new versions of most of the material, utilizing the original 1987 performers and the new sampled sequences.

The rough mixes from the sessions convinced us that we were close--but not yet finished. After four years of living constantly with the work, we felt it would be a good idea to bring in an outside listener, to gain perspective. We invited friend and producer Lee Townsend, who had long been interested in the project, to give us his viewpoint. We then worked with Lee in determining various edits, and a new order for the material. The three of us returned to Home Base in December of 1990, recorded a few sections, and produced the final mix.

THE SOURCE SOUNDS AND TAPE LOOP SYSTEM The loops and other samples created for this recording consist, with one exception, entirely of sounds from Ned's wind instruments (alto and tenor saxophone, bass clarinet, shakuhachi, flute, and ocarina) and Paul's Stratocaster electric guitar. Electronic processing was often used to enhance and focus sounds produced through a variety of extended instrumental techniques. For example, the quiet percussive sounds of the bass clarinet's key clicks were heavily amplified by placing a microphone inside the instrument and then using radical equalization to emphasize the sound's pitched characteristics. Other sounds were altered in the loop medium itself, for example, by turning the loop around on alternate tracks, yielding both forward and backward tracks, as can be heard on the shakuhachi loops used in "Orient and Tropic."

The tape-loop system itself is a kind of analog multitrack recording system, consisting of a four-track recording deck with an added playback head. This head is located exactly halfway through the length of the loop, thus giving an audition point for determining rhythmic synchronization. The duration of the loop is made variable by controlling the speed of the tape machine, which has been altered to allow speeds ranging from about 3 3/4 inches to nearly 30 inches per second. Each channel of each playback head on the machine (2 heads X 4 tracks = 8 channel outputs) has a separate volume control, as on a mixing console in a recording studio. Generally, one records continuously until satisfied with what is on the track, monitoring both the live sound and what was just recorded on the same channel from the added playback head, then simply proceeds to record the next track. One of the outstanding assets of this system is the ease of interaction with the machinery, which allows for a rapid and uninterrupted creative process.

—Paul Dresher and Ned Rothenberg

Orient And Tropic

Ned Rothenberg: shakuhachi, bass clarinet, sequencing

Paul Dresher: guitar, sampling, tape loop system

Anthony Jackson: electric bass guitar

Mark Dresser: acoustic bass

Bobby Previte: drums

Gene Reffkin: high hat, electronic percussion

Samm Bennett: octoban solo in final section

The Long Seven/Yuuniik

Paul Dresher: guitar, sampling, sequencing, loop system

Ned Rothenberg: alto saxophone, sequencing

Anthony Jackson: electric bass guitar

Bobby Previte: drums

Mark Dresser: acoustic bass

Samm Bennett: cymbals

The Untold Story

Ned Rothenberg: alto and tenor saxophones, shakuhachi, sampling, sequencing

Paul Dresher: guitar, sampling, sequencing, loop system

Samm Bennett: acoustic and electronic drums, shakers

Mark Dresser: solo Arco bass

Anthony Jackson: electric bass guitar

Opposites Attack

Paul Dresher: guitar, processing

Ned Rothenberg: alto saxophone

Skronk

Ned Rothenberg: sequencing, sampling

Paul Dresher: sampling

Straight Jabs Redux/Finale

Paul Dresher: guitar, sampling

Ned Rothenberg: alto saxophone, sequencing

Samm Bennett: drums

Anthony Jackson: electric bass guitar

Ned Rothenberg has presented original solo woodwind music in concerts throughout North America, Europe, and Japan. In addition to saxophones, bass clarinet, and flute, Rothenberg is also accomplished on the shakuhachi, having studied with Japanese masters Katsuya Kokoyama and Goro Yamaguchi, as well as with Ralph Samuelson. He leads the group Double Band, and is a founding member of the cooperative ensembles New Winds, Semantics, and Odd Job. His other collaborations include work with Yokoyama, John Zorn, Yuji Takahashi, Gerry Hemingway, and Richard

Teitelbaum. Rothenberg has received fellowships from the New York Foundation for the Arts and the Asian Cultural Council.

Paul Dresher is pursuing musical interests in many media, including experimental opera, chamber, and orchestral works, and scores for dance, video, radio, and film. As Artistic Director of the Paul Dresher Ensemble, an experimental music theater company, and in collaboration with Rinde Eckert, he has guided the creation of the "American Trilogy," a thematic cycle of works, consisting of "Slow Fire," "Power Failure," and "Pioneer," which examine diverse issues in contemporary American culture. He has received commissions from the Kronos Quartet, the San Francisco Symphony, the Spoleto Festival USA, and the Saint Paul Chamber Orchestra. In 1982 he received the Goddard Lieberon Fellowship from the American Academy and Institute of Arts and Letters, and has received a Fulbright Fellowship, as well as numerous grants from the National Endowment for the Arts.

- 1- Orient and Tropic (11:04)
- 2- The Long Seven (3:17)
- 3- Yuuniik (2:30)

The Untold Story

- 4- Sidi Infi/Bolero in Straight Jabs (4:13)
- 5- The Edge of Sleep (3:57)
- 6- Shriek (4:10)
- 7- The Paddling Floes (7:02)
- 8- This Endup (4:15)

- 9- Opposites Attack (5:13)
- 10- Skronk (4:16)
- 11- Straight Jabs Redux/Finale (6:07)

All Music by Paul Dresher and Ned Rothenberg c 1989/90; Published by Minmax Music (BMI) and Thenro Music (ASCAP)

We would like to thank the contributing musicians for their improvisational and compositional input.

Produced by Ned Rothenberg, Paul Dresher, and Lee Townsend

Executive producer: Arthur Moorhead

Recorded and mixed at Home Base Studios, NYC, July & December, 1990

Engineer: Andrew Milano; Assistants: Joseph Bartoldus & Lance Neal

Additional recording at Radio City Studios, July 1987, with Don Hunerburg, engineer, and at Nash Studios, Oakland California, June 1987, with Laeticia de Compiegne Sonami, engineer.

Tape loops and sample recording at Minmax Studios, Berkeley, California 1986-90

Additional sample recording at Park Place Studio, Brooklyn, New York, 1990

Finished sampling was done with an Akai S1000 Stereo Digital Sampler, some earlier work on Akai S900 and 612. No synthesizers are used.

Sequencing done with C-Lab Notator program

Tape loop system designed and built by Paul Tydelsky and Paul Dresher

Additional sample editing: Digidesign Sound Tools and Dound Designer

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SELECTED DISCOGRAPHY

Ned Rothenberg

Trespass, Lumina L011

Portal, Lumina L006

Trials of the Argo, Lumina L001

The Cliff, Sound Aspects SAS 025

Semantics, Rift 9

Bone of Contention, SST 167

Paul Dresher

Night Songs and Channels Passing, New Albion N.A. 003

Liquid and Stellar Music/This Same Temple, Lovely Record VR2011

Slow Fire, Minmax Music 006

Shelf Life, Minmax 004

The Way of How, Minmax 004

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