



Tod Machover

works for live performers and computer generated sound

Light (1979)

Members of the Ensemble InterContemporain with two computer-generated tapes

Conducted by Peter Eötvös

Computer parts realized at IRCAM, Paris

Soft Morning, City! (1980)

Text from *Finnegans Wake*

Jane Manning, soprano; Barry Guy, Double Bass

Computer parts realized at IRCAM, Paris

Tod Machover, (b. 1953, New York), received his B.M. and M.M. degrees from the Juilliard School, where he was an honorary scholarship student. He also studied at the University of California at Santa Cruz, Columbia University, the Massachusetts Institute of Technology and Stanford University, the latter two to work in computer music. His teachers have included Elliott Carter, Roger Sessions and Luigi Dallapiccola.

Machover is also a performer. In 1975-76 he was principal cellist of the National Opera of Canada, and he has conducted internationally. He is a MacDowell Colony Fellow and has received many grants and prizes including the George Gershwin Prize, the Marion Freschl Prize, three National Endowment for the Arts grants, and others from the Martha Baird Rockefeller Fund for Music, Inc., the New York State Council on the Arts, the Koussevitzky Foundation as well as the Charles Ives Fellowship from the National Institute of Arts and Letters.

Machover's works have been performed by leading groups across the U.S.A. and Europe, and at diverse festivals, including Metz-La Rochelle, Lille, Warsaw Autumn, and the Venice Biennale.

He has been commissioned by the French Ministry of Culture, the National Endowment for the Arts, the New Music Consort of New York, cellist Joel Krosnick, the Venice Biennale, pianist Alan Feinberg, the Tokyo String Quartet, the Calouste Gulbenkian Foundation (*Soft Morning, City!* - 1980), and IRCAM (*Light* - 1979).

Machover is Director of Musical Research at the Parisian Institut de Recherche et Coordination Acoustique/Musique (IRCAM), headed by Pierre Boulez.

Notes by Tod Machover

Light and *Soft Morning, City!* form a natural pair among my compositions. Both were completed within the space of one year, deal with similar compositional pre-occupations, and employ related uses of technology in music; together they are the culminating points of my work to that date.

Among the similarities between them, the presence of computer-generated sound is perhaps the most obvious. My real introduction to computer music (other than some preparatory studies at Juilliard, MIT, and Stanford University) came when I arrived at IRCAM, Paris, in the Fall of 1978. It was an exciting time there; a new technology, that of real-time digital synthesis, was just being perfected, thanks to Giuseppe di Giugno, an Italian physicist who had been invited to the institute by Luciano Berio. His machines, at that time the 4A and 4C (now superseded by the 4X!), for the first time

gave composers the possibility of hearing their music immediately and of including gestural control and performance nuance. By a series of lucky accidents I became intimately involved with these machines at an early stage and was able to appreciate the beauty and power that they represented. When IRCAM commissioned me to write a piece for the Ensemble InterContemporain later that year, I decided to employ both the 4A and 4C machines in combination with a large instrumental ensemble.

The piece that resulted was *Light*, which was premiered at the Metz Festival in November 1979, and given its Paris premiere later that month in IRCAM's Espace de Projection. The performers were those who appear on this recording.

The piece takes its title from a quote by Rider Haggard, the English fantasy author: "Occasionally one sees the Light, one touches the pierced feet, one thinks that the peace which passes understanding is gained - then all is gone again." The atmosphere and expressive content of the work reflect these words, which also influenced the choice and treatment of musical materials.

From a single melody (heard in entirety only at the climax of the piece) a complex polyphony is developed that creates layers of simultaneously overlapping, shifting musical planes, like independent clouds that move each at its own speed, and part momentarily to allow rays of light to pass through. Each of these layers is characterised by a different musical elaboration of the same basic materials. The largest contrast is between the instrumental ensemble (14 players) and two separate computer-generated 4-track tapes. Each of these tapes represents a different (and opposing) approach to the elaboration of musical structures. The first uses traditional instrumental timbres and playing techniques as a starting point and transcends the "normal" by extending past the human capacities. The second explores microscopic details of sounds derived from these same instruments, although the connection between the two worlds is made clear only gradually during the course of the piece.

The instrumental ensemble is musically situated between these two approaches. It is divided into four sub-groups (string quartet; woodwind quartet; piano, harp and wood/skin percussion; trumpet, trombone and metal percussion), each of which develops a distinct set of musical tendencies, and possesses a clear timbral identity. The piece was conceived for IRCAM's experimental concert hall, or Espace de Projection, where all acoustical and physical characteristics are controllable. The instrumental ensembles are placed in the four corners of the room, on platforms, with the public seated in the middle. Tape I is distributed through 4 speakers, one placed over each instrumental group, thus emphasizing the "instrumental" departure point for this tape's electronic sound. Tape II emanates from a set of 4 speakers placed on the ceiling of the hall, to exaggerate the separateness of this ethereal and delicate murmuring that develops gradually into the thunderous crashes that mark the climax of the piece.

The piece begins by emphasizing the distinctness of all its various layers. Each group follows its own developmental principles in a section that culminates in a series of cadenzas. After each group has had its say, all material is combined in the large solo of Tape I which builds until the first crashes of Tape II. In the quiet that follows, a new, more homogeneous order is built up gradually, and leads to a final section of delicate chamber music, where equality prevails among all the diverse elements. The main harmony of the piece provides the basis for a meditative coda, which

dissolves into the isolation and bareness of the final piano notes, a shadow of the defiance and brilliance shown by the same instrument at other points of the piece.

The musical form is dramatic, the expressive mood quite romantic, and both are founded on a conviction of mine: that faced with today's confusing kaleidoscope of equally valid parallel lifestyles, cultures and ideas, the only response is to search quietly but resolutely for a deeper truth, perhaps out of nostalgia for a lost simplicity, but hopefully from a courage and belief in a "new order" of synthesis and unity behind the surface chaos. It is this search that I have tried to portray in *Light*.

If *Light* is a formal and spiritual labyrinth that requires several listenings, *Soft Morning, City!* (which was commissioned by the Calouste Gulbenkian Foundation for Jane Manning and Barry Guy) presents its qualities more immediately and directly. This is due mostly to the presence of James Joyce's text, the final monologue from *Finnegans Wake*. The particular passage that I have chosen here has interested me for many years. Coming at the end of this monumental epic, it is a melancholy and moving swansong of the book's main female character, Anna Livia Plurabelle. Now appearing as a washerwoman, she recalls her life as she walks along Dublin's River Liffey at daybreak. Many different planes of narrative are interlaced, the mundane with the spiritual, the sexual with the aesthetic, the personal with the universal. Joyce achieves the closest thing to the temporal parallelism of music by snipping each layer of narrative into short, constantly varying and overlapping phrases. The great beauty is that Joyce creates not the eclectic chopiness that such a procedure might suggest, but a majestic form of tremendous power and sweep. It seems to me that Joyce achieves this through an organization of the over-all *sound* of the passage in an unprecedented way. Listening to a reading-aloud of the text, one is carried by its cadences, tidal flows, crescendos and dying-aways, even while being sometimes only half-sure of the meaning of certain words. It is the rare combination of polyphonic verbal richness with inherent sonic structure that makes it ideal for a musical setting.

My setting takes the form of an aria, though a rather extended and elaborate one. Attention is always focused on the soprano, who alternates between long melodic lines and short interjections that change character quickly. The double bass lends support to the soprano, provides harmonic definition and melodic counterpoint, and often adds musical commentary.

The computer tape helps to amplify, mirror and extend the myriad reflections of Anna Livia, but at the same time acts as a unifying force. To emphasize closeness to the live performers, a new process is added whereby soprano and double bass music is directly transformed by the computer, producing at times sounds that seem to fuse the two into one musical image. Besides the above-mentioned 4A and 4C machines, a large PDP-10 computer was also used, mostly to transform live sounds.

The work begins in stillness, with the soprano evoking the atmosphere of morning, surrounded by an ethereal transformation of her own breath. With the entrance of the double bass, various different strands of the textual polyphony are introduced one after the other, each with characteristic music. As the sonority of the tape gets closer to that of the live instruments, the musical layers begin to overlap with greater rapidity. In the lengthy middle section, many different layers are superimposed so that at the moment of greatest intensity and complexity a new unity is formed.

From this plateau, the rest of the work is built. Quiet communion is achieved between soprano and bass. This leads directly to a long melodic section, with soprano accom-

panied by a continuous harmonic progression in bass and tape.

After a final moment of lonely reflection ("O bitter ending!..."), an enormous wave washes over Anna Livia and carries her away. A quiet coda uses delicate, distant images to recall the stillness of the work's opening. A chapter is closed, a deep breath taken, and we prepare, led by Joyce's Liffey ("Riverrun..."), to begin again.

I wish to thank IRCAM for providing the technology, environment and support that led to these pieces, and Giuseppe di Giugno and Jean Kott specifically, without whose visionary guidance neither piece would have been possible.

- **Jane Manning** has been hailed as one of the most outstanding singers in the field of contemporary music. She has toured extensively throughout Europe, North America, Australia, and the Far East, appearing with a large number of major orchestras and ensembles. In 1973 Miss Manning received a special award from the Composers' Guild of Great Britain for services to British music.
- **Barry Guy** is known both as a double bass player and as a composer. His repertoire covers music of all periods, and he has been equally acclaimed for his exemplary performances of baroque, jazz, and avant-garde music.
- **The Institut de Recherche et Coordination Acoustique/Musique** was founded in 1974 by Pierre Boulez. Part of the Centre Georges Pompidou, it is devoted to contemporary music in its most varied forms: musical acoustics, instrumental research, construction of specialized sound technology (i.e. digital synthesizers), computerized sound analysis and synthesis, computer programs as composing aids, theoretical and analytical studies, teaching activities, and finally the production and presentation of new musical works.
- **The Ensemble InterContemporain** is a Paris-based chamber orchestra, founded in 1976 with French government support, devoted to the performance of 20th century music. Pierre Boulez is President, and Peter Eötvös Musical Director of the Ensemble, which has toured extensively in Europe and recorded for ERATO, DGG and CBS.

Members of the Ensemble InterContemporain and their instruments for *Light* are:

Alain Marion, flute, piccolo Gérard Perreau, oboe
John Wetherill, bassoon Jens MacManama, french horn
Jean-Jacques Gaudon, trumpet Jérôme Naulais, trombone
Michel Cerutti, percussion Philippe Macé, percussion
Alain Neveux, piano Marie-Claire Jamet, harp
Sylvie Gazeau, violin Maryvonne Le Dizes-Richard, violin
Simone Muller, viola Pierre Strauch, violoncello

Light—Ricordi (BMI): 29' 30"

Soft Morning, City!—Ricordi (BMI): 23' 35"

Both recorded in the Espace de Projection, IRCAM, Centre National d'Art et de Culture Georges Pompidou, by Didier Ardit

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For CRI—

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