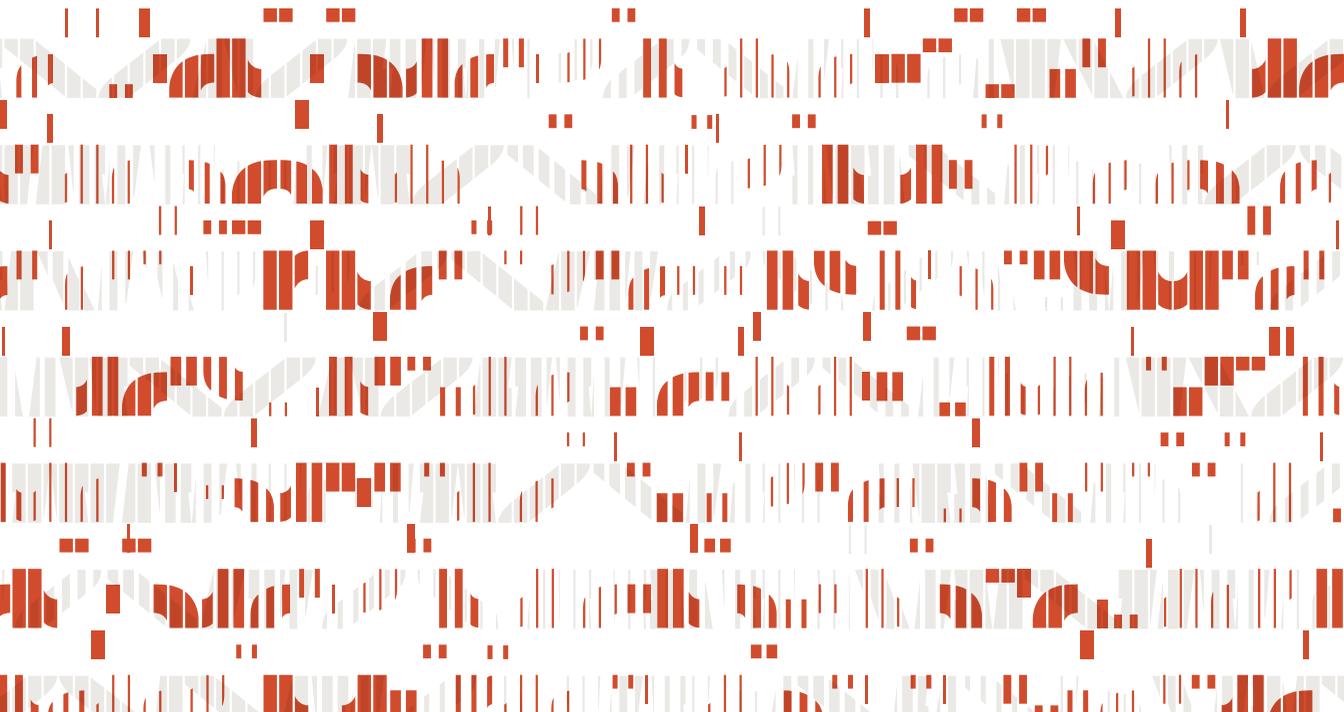Tufts
UNIVERSITY

Harvard
UNIVERSITY

# UTOPIAN LISTENING

The Late Electroacoustic Music of Luigi Nono
Technologies, Aesthetics, Histories, Futures

23–26 March 2016

# Welcome to Utopian Listening

This conference and festival on the late electroacoustic works of Luigi Nono at Tufts University (in partnership with Harvard University), is, we believe, the first of its kind in the USA.

Of all the towering figures of modern music, Luigi Nono (1924–1990) is arguably the least known in North America. While his music occupies a secure, even canonical, place in European musical life, many of his most significant works are performed rarely if at all in North America — although this situation is changing fast. This historical reluctance to engage with Nono's music on this side of the Atlantic can be attributed to several factors including Cold War cultural politics, Nono's complex relationship to Darmstadt and other avant-garde trends, and, most centrally for this project, the practical and aesthetic challenges of performing live electroacoustic music in the face of rapid technological changes.

The workshops and concerts will present several pieces rarely heard in the Boston area and will include the North American premiere of *Das atmende Klarsein*, for bass flute, chorus, and electronics. We have a wonderful group of musicians, scholars, and composers involved, including Claire Chase, Miranda Cuckson, Evan Ziporyn, leading Nono scholars from around the world, including co-organizers Friedemann Sallis and Angela Ida De Benedictis, along with Gianmario Borio, Veniero Rizzardi, Laura Zattra, Hans Tutschku, Joshua Fineberg, Christopher Burns, and many others. Our distinguished guests are Nuria Schoenberg Nono and Alvise Vidolin, who worked closely with Nono on many works.

*Utopian Listening* also represents a groundbreaking partnership of participants from many of greater Boston's distinguished universities including Tufts, Harvard, MIT, Brandeis, and Boston University, working together with participants from across North America and Europe. We are happy that the University of California Press will soon issue the very first volume of Nono's writings in English translation.

The festival will include a sound and light installation inspired by Nono's work in Venice coordinated by John Ellis of the Wentworth Institute of Technology, and what we are sure is the first Luigi Nono-themed children's concert in North America, as part of the Tufts Community Music program.

We hope that this festival, along with the continuing efforts of many of the performers and scholars with us this week, will launch a "Nono renaissance" in this country, inspiring performances, studies and future conferences.

Warmest wishes,

**Joseph Auner**
Tufts University

**Anne C. Shreffler**
Harvard University

# Schedule

## WEDNESDAY, 23 MARCH

Interstices

## The Space Between — Arch-i-pelago

THROUGHOUT THE DAY ▪ GRANOFF LOBBY

An installation by John Ellis and The Wentworth Institute of Technology Master of Architecture Advanced Topics Class — *Interstices: Architecture and Music*.

## Welcomes & Keynotes

2:00–3:45PM ▪ VARIS LECTURE HALL (RM 155)

**Introductions**        JOSEPH AUNER & ANNE SHREFFLER
**Welcome**        BÁRBARA BRIZUELA
**Greeting and Remarks**    NURIA SCHOENBERG NONO

**Keynote 1**    (2:15–3:00PM)

    At the Roots of Utopian Listening:
    Luigi Nono's Gaze at the World through Technology
    GIANMARIO BORIO

**Keynote 2**    (3:00–3:45PM)

    "Continuity in spite of myself."
    Nono's Journey Towards a Restoration of the 'seconda pratica'
    VENIERO RIZZARDI

## Roundtable 1

# Technologies and Aesthetics

4:00–6:00PM ▪ VARIS LECTURE HALL (RM 155)

**JOSEPH AUNER**, MODERATOR

Participants include Angela Ida De Benedictis, Dorothee Schabert, Alvise Vidolin, and Laura Zattra.


## Working Dinner for Pre-registered Participants

6:00–7:30PM ▪ GRANOFF LOBBY


## Workshop 1

# Das atmende Klarsein

7:30–10:00PM ▪ DISTLER PERFORMANCE HALL

**JOSEPH AUNER**, MODERATOR

Claire Chase, Hans Tutschku, and Triad: Boston's Choral Collective. Discussants include Paolo Somigli.

## Morning coffee
8:30–9:00AM ▪ DISTLER LOBBY

## Special session
9:00–10:00AM ▪ VARIS LECTURE HALL (RM 155)
**ANNE SHREFFLER**, MODERATOR — ABSTRACT ON P.13

A spectral examination of a performance of *Luigi Nono's A Pierre, dell'azzurro silenzio, inquietum* (1985) for contrabass flute, contrabass clarinet and live electronics
IAN BURLEIGH & FRIEDEMANN SALLIS

## Workshop 2
## A Pierre. Dell'azzurro silenzio, inquietum
10:00AM–12:00PM ▪ DISTLER HALL
**ANNE SHREFFLER**, MODERATOR

Claire Chase, Evan Ziporyn & Hans Tutschku. Discussants include Ian Burleigh, Friedemann Sallis & Ioannis Angelakis.

## Lunch break
12:00–2:00PM

## Paper Session 1
# Winds of Change

2:00–4:00PM ▪ VARIS LECTURE HALL (RM 155)

**JOY CALICO**, CHAIR — ABSTRACTS ON P.14

Sonic Ecologies: Aesthetic Landscapes and Simmel's Frame in the Late Electroacoustic Works of Luigi Nono
BRUCE QUAGLIA

The Haunted Electroacoustics of *Fragmente-Stille, an Diotima*
CHRISTOPHER DELAURENTI

At the Threshold of a New Beginning: The Language of Ethics in *Con Luigi Dallapiccola* (1979)
JAMUNA SAMUEL

Non-linearity, Lineage, and Social Engagement in Luigi Nono's *Risonanze erranti. Liederzyklus a Massimo Cacciari*
MICHAEL LUPO

## Coffee break

4:00–4:30PM ▪ GRANOFF LOBBY

## Roundtable 2
# Political Contexts and Ramifications

4:30–6:30PM ▪ VARIS LECTURE HALL (RM 155)

**GIANMARIO BORIO**, MODERATOR

Participants include Michael Lupo, Veniero Rizzardi, Friedemann Sallis, Nuria Schoenberg Nono, and Anne Shreffler.

## Working Dinner for Pre-registered Participants

6:30–7:45PM ▪ GRANOFF LOBBY

## Workshop 3

# La lontananza nostalgica utopica futura

7:45–10:00PM ▪ FISHER PERFORMANCE ROOM (LOWER LEVEL)

**ANNE SHREFFLER**, MODERATOR

Miranda Cuckson & Chris Burns. Discussants include Kyle Kaplan.

# FRIDAY, 25 MARCH

## Morning coffee

8:30–9:00AM ▪ DISTLER LOBBY

## Poster Session

# Software Tools for Analysis

9:00–10:00AM ▪ DISTLER LOBBY

A Three-Dimensional Representation of Sound and Space. The Case of
*Omaggio a György Kurtág*
LUIGI PIZZALEO

Tools and practices to perform *La lontananza*
PAOLO ZAVAGNA

What is the score? Analyzing Nono's works with live electronics
TIM SULLIVAN

Abstracts
on p.18

## Paper Session 2

## Prometeo

10:00AM–12:00PM ▪ VARIS LECTURE HALL (RM 155)

**ERIC CHASALOW**, CHAIR — ABSTRACTS ON P.21

Drama versus *drân*: the function of the live electronics in Nono's *Prometeo* (1985)

CAROLA NIELINGER-VAKIL (DELIVERED BY ERIC CHASALOW)

Philology and Oral History: The Story of Computer Research in Luigi Nono's *Prometeo. Tragedia dell'Ascolto* (1981–5)

LAURA ZATTRA

Thinking music – musical thinking: An analysis of *Isola 3ª/4ª/5ª* (*Prometeo*)

PAULINE DRIESEN

Desecrations of Silence: Performing *Prometeo* as a post-industrial future

CYNTHIA BROWNE

## Lunch break

12:00–2:00PM

## Roundtable 3

## Technology and the Creative Process

2:00–4:00PM ▪ VARIS LECTURE HALL (RM 155)

**FRIEDEMANN SALLIS**, MODERATOR

Participants include Joseph Auner, Veniero Rizzardi, Margaret Schedel, and Laura Zattra.

# Coffee break

# Workshop 4

## Post-prae-ludium n.1 per Donau

**JOSEPH AUNER**, MODERATOR

Max Murray & Joshua Fineberg. Discussants include Alípio Carvalho Neto.

# Working Dinner for Pre-registered Participants

# Concert 1

## Part 1

*Ricorda cosa ti hanno fatto in Auschwitz* (1966) for tape
ALVISE VIDOLIN (SOUND DIFFUSION)

*La lontananza nostalgica utopica futura* (1988) for solo violin and 8 tapes
MIRANDA CUCKSON (VIOLIN) & CHRIS BURNS (SOUND)

## Part 2

*La fabbrica illuminata* (1964) for soprano and four channel tape
STACEY MASTRIAN (SOPRANO) & PETER PLESSAS (TAPE)

*Post–prae-ludium n.1 per Donau* (1987) for tuba and live electronics
MAX MURRAY (TUBA) & JOSHUA FINEBERG (ELECTRONICS)

## Morning coffee
9:00–10:00AM ▪ DISTLER LOBBY

## Concert 2
10:00–11:30AM ▪ DISTLER PERFORMANCE HALL
PROGRAM NOTES ON P.40

*A Pierre. Dell'azzurro silenzio, inquietum* (1985) for contrabass flute, contrabass clarinet, and live electronics
CLAIRE CHASE (CONTRABASS FLUTE), EVAN ZIPORYN (CONTRABASS CLARINET), AND HANS TUTSCHKU (ELECTRONICS)

*Das atmende Klarsein* (1981) for small chorus, bass flute, live electronics, and tape
CLAIRE CHASE (BASS FLUTE), TRIAD: BOSTON'S CHORAL COLLECTIVE, DAVID HARRIS (CONDUCTOR) AND HANS TUTSCHKU (ELECTRONICS)

## Lunch Break for Pre-registered Participants
11:30AM–12:30PM ▪ ALUMNAE HALL

## A Special Children's Event
## Nono's Sound World
11:30AM–12:00PM ▪ DISTLER PERFORMANCE HALL
HOSTED BY THE TUFTS COMMUNITY MUSIC PROGRAM

# Paper Session 3

## Technologies of Sound and Ink

12:30–2:30PM ▪ VARIS LECTURE HALL (RM 155)

**THOMAS PEATTIE**, CHAIR — ABSTRACTS ON P.25

Authenticity, originality and the idea of musical interaction in Nono's works with live electronics (*Omaggio a György Kurtág*)
PETER PLESSAS

Late Nono and the Uncertain Interval of the Subject
TRENT LEIPERT

The Historical Trajectory of Dialectical Listening and the Metaphysics of the Avant-Garde in the Work of Luigi Nono: An Application to *A Pierre. Dell'azzurro silenzio, inquietum* (1985)
IOANNIS ANGELAKIS

An Articulation of Mobility: *Con Luigi Dallapiccola* & the Musical Object
ANTON VISHIO

# Coffee break

2:30–3:00PM ▪ GRANOFF LOBBY

# Roundtable 4

## Performance Practice, the Score, and the Idea of the Work

3:00–5:00PM ▪ VARIS LECTURE HALL (RM 155)

**ANGELA IDA DE BENEDICTIS**, MODERATOR

Participants include Friedemann Sallis, Nuria Schoenberg Nono, Margarethe Maierhofer-Lischka, and Alvise Vidolin.

## Workshop 5

## .....sofferte onde serene...

5:15–6:45PM ▪ DISTLER PERFORMANCE HALL

**ANNE SHREFFLER**, MODERATOR

Julia den Boer & Peter Plessas. Discussants include Martin Ritter and
Brent Wetters.


## Working Dinner for Pre-registered Participants

6:45–8:00PM ▪ ALUMNAE HALL


# Concert 3

## Part 1

8:00PM ▪ DISTLER PERFORMANCE HALL

PROGRAM NOTES ON P.33

> ..... *sofferte onde serene* … (1976) for piano and tape
> JULIA DEN BOER (PIANO) & PETER PLESSAS (TAPE)

> *Post–prae–ludium n.1 per Donau* (1987) for tuba and live electronics
> MAX MURRAY (TUBA) & JOSHUA FINEBERG (ELECTRONICS)

## Part 2

8:45PM ▪ FISHER PERFORMANCE ROOM

> *La lontananza nostalgica utopica futura* (1988) for solo violin and 8 tapes
> MIRANDA CUCKSON (VIOLIN) & CHRIS BURNS (SOUND)

# Abstracts

## SPECIAL SESSION

### A spectral examination of a performance of Luigi Nono's *A Pierre, dell'azzurro silenzio, inquietum* (1985) for contrabass flute, contrabass clarinet and live electronics

IAN BURLEIGH AND FRIEDEMANN SALLIS

In separate papers, given back-to-back, we explain how data was harvested from a recording of a performance (February 2009) of Luigi Nono's *A Pierre, dell'azzurro silenzio, inquietum* and how the data was transcribed, resulting in a visual image of the concert performance. The image represents the performance, not the work per se. Other performances would produce different data that would result in different images, though we assume that good performances would result in comparable images. Nevertheless, our transcription provides information about *A Pierre* that, until now, was only available to the composer and his collaborators involved in the creative process and to performers after they had rehearsed and performed the work. Following a presentation of the data capture and transcription techniques, which could be applied to any number of live electronic works that cannot be set in conventional notation, we present an interpretation of the form and content of the musical performance. Together our papers examine the performance practice of Nono's late works and the impact of electronic technology on them, the role of the published score, and analytical issues that arise in attempting to come to terms with this music. In so doing, we also touch on Nono's creative process and the work concept that underlay the composition of *A Pierre*.

## Sonic Ecologies: Aesthetic Landscapes and Simmel's Frame in the Late Electroacoustic Works of Luigi Nono.

BRUCE QUAGLIA

Luigi Nono (1924-90) is regarded as a socially committed composer, but the musical expression of his engagements evolved continuously throughout his career. Like other Italian composers of his generation, Nono conceived his musical materials and techniques within a framework defined by specific cultural, historical, and intellectual contexts. Unique among these techniques was his use of space as a compositional element. The use of space beginning in mid-1960s works such as *A floresta é jovem e cheja de vida* (the forest is young and full of life) poses a basic connection between environment and social relationships that is initially tentative and considered in an exclusively political mode. These connections would subsequently be explored in concretely aesthetic terms in his later electroacoustic works written during the 1980s. *A floresta* is Nono's first work to involve performers interacting with live electronics and directed sound within a collaborative compositional system. As a result, the materials and techniques of that work appear to be explicitly conceived as a compositional environment that merges political, social, and ecological dimensions as a holistic aesthetic reality. A trajectory may then be drawn towards his later interactive electroacoustic works in which the performer (and listener) must navigate spatially and temporally dynamic environments. These spaces implicate a sonic ecology that is revealed to be "tragic" when the listener is drawn into the frame of the work itself. Venice, at once an artificial metropolis and an island, forms the basis for this tragic sonic ecology and provides a comprehensive structure for theorizing it. I apply Georg Simmel's thought on the sociology of space and form in the essays "The Philosophy of Landscape," "Venice," "The Picture Frame," (and others) as a means for examining Nono's musical spaces

in the works from the 1980s that were created through his collaboration with Massimo Cacciari.

## The Haunted Electroacoustics of *Fragmente-Stille, an Diotima*

CHRISTOPHER DELAURENTI

Throughout Western music, silence serves as waypoint between sound and the next sound. Silence enunciates a time to rest, to count, to wait, to prepare. Notating with rests, casesurae, fermatas, and other symbols, composers husband these rhetorically distinct yet subtle gaps in sound to articulate transitional, cadential, or otherwise significant structures. This functional role of silence helps explain why Luigi Nono's only string quartet still shocks; unbraiding time into anguished, eruptive passages, the silences of *Fragmente-Stille, an Diotima* startle, gasp, and freeze.

Collapsing the hierarchical relationship between sound and silence, Nono's string quartet transmutes those inaudible gaps from a mere element to an essential substance of the music. There is no master, no servant, only listening.

*Fragmente* manifests multiple forms of silence. To shepherd performers towards the "many moments, thoughts, silences, 'songs' of other spaces" as indicated in the score, Nono filigreed the staves of *Fragmente* with multiple types of fermata as well as fragmentary passages by the poet Hölderlin. The performers must not recite anything aloud but should, according to the composer's instructions, murmur (or think) the lines to themselves while performing.

Inspired by philosopher Antonio Negri's notion that "a specter is the movement of an abstraction that is materialized and becomes powerful," I argue that *Fragmente-Stille*'s multiple forms of silence cocreated by the performers, the audience, and in the recording process materialize silence and haunts the quartet with a shadow work, a ghostly double, of electroacoustic music.

I will examine this electroacoustic specter, drawing upon audio forensics, sound studies of audience performativity, and audio examples extracted from *Fragmente*'s digitally defined horizon of noise and silence. I will speculate on whether the seemingly ever receding utopian aura of *Fragmente* confounds the possibility of its own presence as an acoustic work.

"I find silence full of voices, " declared Nono. But might those voices summon owners? I also will address who can claim the voices, the specters, of Nono's desired "dreaming spaces" and "tranquil breaths" that haunt *Fragmente-Stille, an Diotima*.

## At the Threshold of a New Beginning: The Language of Ethics in *Con Luigi Dallapiccola* (1979)

JAMUNA SAMUEL

Nono's *Con Luigi Dallapiccola* sketches include a note to a "continuous presence of a brother of great human moral and musical rigor," then citing the imminent *Prometeo*. My paper explores Dallapiccola's influence, intertextually and through a larger, ethical model, which I claim figures crucially at the threshold of Nono's final period. To highlight this shared worldview, I first explore Dallapiccola's wider influence on the immediate postwar Italian avant-garde by reassessing the relationships between compositional process and ethical import.

As noted by Alessandro Mastropietro, Nono's term "brother" alludes to the "Brother" motive from *The Prisoner* (1948), permeating both scores. Nono's homage goes beyond that, however, to unfold a dense, memory-like narrative of the staged psychological drama, including the evocation of other *Prisoner* leitmotives, for example those representing a bell and a lantern. A "futuristic nostalgia" develops through the percussion ensemble fused with live electronics. The subtraction of pitch foregrounds rhythm and timbre, underscoring features of Dallapiccola's craft often overlooked; at the same time, the electronics dis- and re-orient the listeners' time-space sense. In this and other ways, what at first seems an introspective, intimate meditation evolves into a theatrical, even revolutionary work, absorbing the musico-dramatic characteristics of Dallapiccola's experimentally twelve-tone opera into a new language (*linguaggio specifico*, in Nono's words). The prisoner's struggle emerges from the sound-world, his alternating entrapment and liberation through listening, within a maze-like physical and psychological space. Nono had pushed the concept of genre with *Intolleranza*, similar to *Prisoner* for the boldness in dramatic innovation; *Con Luigi Dallapiccola* continues in the same vein, emphasizing the ethical rather than the political.

Nono's "con" acknowledges a singular influence, distinguishing this work from other dedications, in his and others' outputs, that are "to" or "for." "Con" evokes a presence, a present, a journey together; a dialogue, however, not just of technique and form. Nono's musical language itself, I propose, embodies liberation, similar to the freedom inherent in Dallapiccola's serialism. Both composers--at significant junctures of life, work, and political path--communicate a "new beginning" (*nuovo inizio*) through a narrative in which language and ethics are one.

## Non-linearity, Lineage, and Social Engagement in Luigi Nono's *Risonanze erranti. Liederzyklus a Massimo Cacciari*

MICHAEL LUPO

Luigi Nono incorporated motivic and textual material from Guillaume de Machaut's *Lay de plour*, Johannes Ockeghem's *Malheur me bat*, and Josquin des Prez's *Adieu mes amours* into his electroacoustic work *Risonanze erranti. Liederzyklus a Massimo Cacciari* (1986–87) in remembrance of the time he and Bruno Maderna spent analyzing early music. These chansons not only provided Nono with precompositional material, but are also audible to varying degrees as "echoes" throughout the piece. As interpolations, these echoes are irregularly recurring blocks of sound frequently mediated by electronic spatialization. Nono's treatment of the echoes blurs the distinction between form and content while simultaneously encouraging novel modes of listening.

The following essay provides an examination of some structural relationships embedded in *Risonanze*'s echoes. Focus here will be mostly limited to disentangling references between a specific des Prez echo and its surrounding sonic material, a later Machaut echo, and other musical compositions referred to in the score. Some of these associations are perceptually available to the auditor, while others are restricted to the performer, who of course is also a listener. My analysis draws on Jonathan D. Kramer's *The Time of Music*, which takes as foundational the perspective that temporality rests in the subjective perception of the auditor. Specifically, his notion of "moment time" helps to account for the discernment of connectivity within a non-linear structure.

I conclude by situating the compositional techniques described above within the broader context of Nono's approach to social engagement in the 1980s. By composing music that encouraged listeners and performers to form constellations of meaning within the framework of space and non-linear time, Nono enlists the act of memory, which is essential in making connections between disparate historical moments and is a key theme in *Risonanze*. The idea of history as non-linear moments connected in individual subjectivity offers Nono an expression — one highly inspired by the writings of Gramsci, Marcuse, Benjamin, and Cacciari — of social liberation through individual perception.

# POSTER SESSION: SOFTWARE TOOLS FOR ANALYSIS

FRIDAY, 25 MARCH, 9:00–10:00AM ▪ DISTLER LOBBY

## A Three-Dimensional Representation of Sound and Space: The Case of *Omaggio a György Kurtág*

LUIGI PIZZALEO

In some of the pieces scored for instruments and live electronics by Luigi Nono after 1980, the electronic sound processes are notated by means of a twofold notation (representation of the process by its flowchart *outside* the score; representation of the gains of its inputs and/or outputs *inside* the score). This model makes the score a valuable tool for the performance of the work; however, unlike traditional instrumental scores, it does not allow one to build a *complete* mental representation of what actually happens in sound, since the score has to give an exact prescription of what the performer has to do rather than what the heard sound has to be. From a descriptive point of view, the outputs of harmonizers or delay lines might be depicted, for instance, by additional systems and staves, which would be not so useful indeed, since they would represent just the response of the machines and, at bottom, such tools would

freeze on the paper what should be variable, unpredictable, *mobile*. A similar issue arises in dealing with the motion of sound in the space accomplished with the Halaphon. How to represent it? The software presented in this paper, written in the Processing programming language, allows one to draw the movement as a 3D curve (or "space/time track") in the frame of an abstract three-dimensional space defined by the loudspeakers. In the case of *Omaggio a György Kurtág* for contralto, flute, clarinet in B♭, bass tuba and live electronics (1983; 1986), there are six loudspeakers and three space/time-tracks describing the movement of sound through cyclic paths of four loudspeakers. For each cycle a different duration is prescribed; so, the coloured lines running through the 3D-mesh make it easier to determine visually how sound is distributed in time through the six loudspeakers and "what is where" in a given moment. But the question remains: is all of this faithful to Nono's thought? Is it useful for either performers or musicologists? Or does all its relevance lie — if any — in didactic and analytical implications?

## Tools and practices to perform *La lontananza*

PAOLO ZAVAGNA

From the point of view of the sound projection, to perform *La lontananza* the first problem which has to be overcome is the master knowledge of the sound content of the eight audio tracks. As André Richard points out in his introduction to the score, "the musician in charge of playing the tape absolutely must apply himself to an extremely detailed study of the sound material contained on the eight tracks." Since each track is longer than an hour, in order to master all the sound contents in the eight tracks we need to know 8 hours of 'music' in detail. The solution I propose is a 'transcription' of the audio content in a graphical way, with annotations about the content of the recording (we can see an example in the figure below). The transcription includes, for all the eight tracks: waveform; sonogram; time indications; texts; segmentation.

Texts and comments included in the 'score' are partly extrapolated from the sketches and notes by Nono and from the tapes recorded by Gidon Kremer (tapes which are full of comments by the composer), their copies are available at the Archivio Nono in Venezia. Aside from Richard's comments ("the eight

tracks can be divided up according to four criteria"), through the graphical form we can immediately see and anticipate dynamics, movements of sound between tracks, and sound content. During rehearsal with the violin we can use the transcription as a guide to note down, for example, the interpretation of the violinist or how to adjust the level of the tracks or also, eventually, to add some reverberation.

A second problem to overcome in order to be able to perform *La lontananza* concerns the 'movements' of pre-recorded sounds between loudspeakers; this does not mean a continuous movement (although even this solution is not rejected a priori, depending on the environment in which the performance takes place), but the combination of each track in each loudspeaker. Theoretically, this procedure could be made possible by means of the mixer, but a dedicated software can perform these assignments more rapidly, allowing the player on the sound projection to concentrate on the sound content of the audio tracks and on the reaction to the sound produced by the violin. A version of the software is presented during the poster session.

## What is the score? Analyzing Nono's works with live electronics

TIM SULLIVAN

Luigi Nono's works with live electronics pose many challenges for the analyst; these challenges are apparent with even a quick glance through the prefatory material for one of his published scores in this genre. Every score begins with meticulous annotations about extended instrumental techniques and sonic effects, and proceeds with a detailed diagram and description of the live electronics employed in the work. The notated score follows, most often occupying fewer pages than the material that preceded it. Undoubtedly, the notated score is essential to the performance of the work, but at best it represents only a fraction of what one experiences when listening to the work.

Given all of these issues, I have often wondered if these works are inherently resistant to any kind of detailed analysis, particularly in terms of pitch or frequential structure. In this project, I demonstrate that progress is possible in this direction with the assistance of the free audio analysis program Sonic Visualiser (www.sonicvisualiser.org). While Nono's published scores represent

the sonic content of the work in three interrelated but notationally separate entities (instrumental effects/electronics/score), a program like Sonic Visualiser enables the transcription of all of the sonic information into a single score. Using a definitive recording (i.e. featuring performers that worked with Nono), I completed a frequential/sonic transcription of *Omaggio a György Kurtág* (1983-86), which I then compiled into a kind of meta-score for the work.

The transcribed score leads to consideration of several interconnected questions. First, how might an analysis of the published score compare with an analysis of the transcribed score? What structural information (e.g. pitch/frequency, noise, rhythm, form) does the published score include, and what information is apparent only in a transcription of a recording/performance? Finally, given Nono's use of unstable and variable instrumental effects, his desire to merge acoustic/electronic sounds, and most especially issues of performance practice and oral tradition, is it relevant to attempt to produce anything like a "definitive" transcription, and if not, what are the consequences for the analyst?

# PAPER SESSION 2: PROMETEO

FRIDAY, 25 MARCH ▪ 10:00AM–12:00PM ▪ VARIS LECTURE HALL (RM 155)
**ERIC CHASALOW**, CHAIR

## Drama versus *drân*: the function of the live electronics in Nono's *Prometeo* (1985)

CAROLA NIELINGER-NAKIL

Based on extensive research on *Prometeo* for my forthcoming book, *Luigi Nono: A Composer in Context* (Cambridge University Press, March 2016), and my current experience of editing the new printed edition of the score together with André Richard and Marco Mazzolini (Ricordi, Milan, forthcoming), this paper will examine the various functions of the live electronics in *Prometeo* (1985). With detailed information on the work's spatial set-up and the transmission

and movement of sound in space, selected examples will serve to demonstrate three crucial aspects: the use of electronics as a large scale dramatic device, its diametrically opposed, microscopic function of revealing and modifying some of the innermost details of the live sound and, perhaps most importantly, its symbolic representation of Promethean 'techne' within this 'tragedy of listening' as a whole. It will thus be shown that the use of electronics is not only extremely differentiated, but deeply embedded in the philosophical critique of progressive-constructive thought that shapes the work and its musical language throughout.

## Philology and Oral History: The Story of Computer Research in Luigi Nono's *Prometeo. Tragedia dell'Ascolto* (1981-85)

LAURA ZATTRA

One of the most important collaborative projects realized by Luigi Nono during his last decade of activity was the immense musical theater work *Prometeo. Tragedia dell'Ascolto* (1981-1985). This composition is an excellent example of a collective project, bringing together musicians, soloists and choir singers, sound engineers (working on real-time computer generated sounds), technicians (live electronics), a lyricist (M. Cacciari), an architect (R. Piano), and an artist (E. Vedova), under the guidance and compositional writing of the composer.

In this paper, I direct my attention to computer research developed within the framework of this huge musical project. Musical Assistants Alvise Vidolin, Sylviane Sapir, and Mauro Graziani from CSC (Centro di Sonologia Computazionale, University of Padova) designed the real-time digital sound processor, called the 4i system, to synthesize real-time sounds. At this time, research on real-time sound synthesis was achieving its first important results in various computer music centres around the world.

Nono recalled that "first of all, we agreed on the use of some type of sound material I've been interested; they provided me with a sort of sound catalogue, which has become a starting point; from here on out we started to do some tests and discuss."

I report findings from a two-fold investigation. First, I do an exhaustive study of source materials pertaining the generative process of sounds and soft-

ware, including the score of the first performance (Venice, September 1984) and computer sketches from the second performance (Milan, September/October 1985) (real-time synthesis was used only in these two concerts). Archive documents (published/unpublished sources from Archivio Luigi Nono, Venice ASAC, CSC, and musical assistants' personal archives) show that the digital sound processor 4i, originally conceived at IRCAM in Paris, was adapted to this project through a series of computer procedures following Nono's aesthetic suggestions (one of the synthesis *instruments*, or patches, was called "winds"). Source analysis, however, is not sufficient to reveal the whole compositional/research project. Musical assistants' memories (a parallel line of research) enable me to explain certain technological developments, problems, and solutions which have been adopted, even to discover details and real backgrounds in collaboration management.

## Thinking Music – Musical Thinking: An Analysis of *Isola 3ª/4ª/5ª* (*Prometeo*)

PAULINE DRIESEN

This paper presents a thorough analysis of *Isola 3ª/4ª/5ª*, one of the central parts of Luigi Nono's 'tragedy of listening' *Prometeo*. Up to the present day, these three islands have not yet been subject to in-depth analytical investigation. More importantly, however, an analysis of these islands offers a unique insight in the creative process of one of the most idiosyncratic composers of the 20th century.

First of all, a study of preparatory sketch material for *Isola 3ª/4ª/5ª* uncovers the compositional construction of these islands as a genuinely musical realization of the textual idea underlying them. After having abandoned his utopian quest for the salvation of mankind, Prometheus is now thrown back on a never-ending drifting at the sea of doubt. In other words, *Isola 3ª/4ª/5ª* embodies the core concepts of Nono's own socio-political self-understanding in this late period: the continuous questioning of so-called truths and established values, inspired by the work of Wittgenstein, Musil and Benjamin.

The analysis presented in this paper shows how both Nono's selection of pitch material as well as the rhythmical organization of *Isola 3ª/4ª/5ª* were

dictated by the same philosophical concepts. As such, these islands form a genuine example of how, as Nono used to say, *musica è pensare*: composing was an actual way of thinking for him. More precisely, it was his very access to a non-conceptual and as such *open* thinking.

Special attention will also be given to the part of the live electronics. Nono's singular application of the gate control in *Isola 3ª/4ª/5ª* obliges its performers and listeners to adapt an utterly active mode of listening, open to the yet unknown and unheard. In sum, open to 'the Other'. In this way, Nono's music not only gives us an insight in his own way of thinking, but it eventually also instigates a new kind of thinking with its performers and listeners. Finally, as can be read in one of his sketches, *ascoltare diventa pensare* too.

## Desecrations of Silence: Performing *Prometeo* as a Post-Industrial Future

CYNTHIA BROWNE

The paper takes as its point of departure the recognition that the performance practice of Nono's late electroacoustic works challenge the modernist assumptions regarding the "strong work concept" that privileges the musical text as the hermeneutic locus of meaning. Such recognition arises from how Nono's acoustic experimentation with his "interpreters" and live electronics at the Freiburg studio in the 1980s produced novel sonic phenomena, particularly in relation to the spatiality of the sound, whose reproduction is pivotal for performance yet whose precise notation is often not provided in the final published score. It is precisely this gap that has rendered the production of *Prometeo* since its premiere in 1984 a continual work in progress. In the first section of my paper, I draw upon my participant observation, close listening, and interviews during the 2015 production of *Prometeo* at the Ruhrtrienniale to argue that is that particular sets of sound ideas and events — both anticipated and realized in relation to the concrete, acoustic specificities of the "concert hall," i.e. Kraftzentrale — help Nono's interpreters navigate key aesthetic questions and performance decisions within the making of the work. Reducible neither to the pre-given score nor strictly to the performative event, the "idea" of the work, in *Prometeo*, is rather a dialogical one, grounded in a conversation between the

spatiality of (idealized) sound and the sound of a given (empirical) space. In the second section of my paper, I discuss how particular sound images, especially those hovering on the edge of silence, acquire additional resonances for listeners due to the current socio-political situation of the Ruhr. Just as Nono yoked the utopic dimensions of the work to an active form of listening cultivated by its specific aesthetics, leaders and intellectuals in the Ruhr envision art in general as a mediator for new modes of perceiving and valuing the Ruhr's presently run-down industrial landscape. In this way, the utopic hope invested through a form of active perception in *Prometeo* embodies and allegorizes the hope attributed to artistic production in the Ruhr more generally.

# PAPER SESSION 3: TECHNOLOGIES OF SOUND AND INK

## Authenticity, originality and the idea of musical interaction in Nono's works with live electronics

PETER PLESSAS

This contribution will discuss the topics of authenticity, originality, and musical interaction in Luigi Nono's music with live electronics using the example of *Omaggio à György Kurtág* (1983/1986) and its revised performing edition.

Nono's pieces with live electronics pose an interesting and instructive challenge to anyone wanting to perform them in a musically rewarding way. Due to the effort by Nono's former collaborators issuing revised performing editions, this challenge becomes more and more feasible. During the preparation of a performance, the design of an implementation of the live electronics, which in Nono's case is left to each performer's discretion, inevitably turns into an investigation of authenticity, originality and musical interaction.

Criteria leading to authentic performances are related to the composition's unique approach towards live electronics, as well as to them being the product of a team effort between Nono, Hans-Peter Haller, his colleagues, and the instrument performers. A common characteristic of these pieces is the creation of their electronics by turning existing technical equipment into musical instruments. How does the modeling of such historic audio equipment, for example through impulse response measurements, contribute to authenticity, and which characteristics should be modeled at all?

The promotion of originality in each individual performance of Nono's music is closely tied to his preference for difficult and even risky passages, for example asking for extreme dynamics and pitch registers in the acoustic instruments parts, and also in the interplay with the live electronics. How can a deliberate attempt towards liveness and originality be established and contained in the performance practice of these pieces?

The influence of different implementations of the live electronics on the quality of the musical interaction proves crucial. It can be discussed with regard to an "internal" interaction between electronics performer and her/his instrument. This interaction is largely established and shaped by the affordances and limitations of this instrument and its interface. Consequently, an "external" interaction quality affects the interplay between all musicians. Strategies for fader mapping, time synchronisation, audible feedback and examples of microphone technique serve as case studies outlining important design choices affecting these internal and external musical interactions.

## Late Nono and the Uncertain Interval of the Subject

TRENT LEIPERT

Shortly after the completion of his late quartet, *Fragmente-Stille, an Diotima* (1979-80), Luigi Nono took up a series of residencies at the Heinrich-Strobel-Stiftung des Südwestfunks in Freiburg where he developed techniques for real-time, live electronic manipulation of musical performance. The incorporation of these new technologies, coupled with Nono's constant reworking and recycling of material between his late compositions and within the same piece for different venues, creates a complicated work ontology for this period. Cer-

tain final works have only recently been published and recorded. Complicating this situation, prominent features of Nono's late style — his preoccupation with micro-intervals, long silences or near- silences, extremely subtle and fluctuating timbres, and his increased experimentation with performance space — resist conventional analytic methodologies. Simultaneously, they also leave hermeneutic inquiry facing actual written scores with surprisingly rudimentary configurations: unisons, fourths, tritones, and fifths are often the basic building blocks of Nono's late works.

Drawing on examples from *Guai ai gelidi mostri*, *Prometeo*, and *Das Atmende Klarsein*, I develop the concept of the "uncertain interval," which applies to both specific musical configurations as well as to the structure of the subject in several philosophical traditions of the twentieth century. This notion suggests ways of thinking about the question of content in Nono's later works and possible thematic relationships between them. It allows us to bridge analytic, hermeneutic, and phenomenological considerations in several of his late compositions incorporating live electronics and various literary and philosophical fragments. While my talk hopes to shed some analytic insight into Nono's late style, it also contextualizes the composer's final decade of output against broader social and economic transformations and debates. Indeed, as I further suggest, the music of Nono's final decade provides a unique mediation of the very structure and conditions of the subject of late modernity.

## The Historical Trajectory of Dialectics and Metaphysics in the Work of Luigi Nono: An Application To *A Pierre. Dell' Azzurro Silenzio, Inquietum* (1985)

IOANNIS ANGELAKIS

This paper will use an analytical perspective to reveal how profoundly the sonic result in *A Pierre* deviates from what is written on the score, and to show that, therefore, a score-analysis approach is insufficient as a way to understand the piece. Although *A Pierre* is permeated by a fair amount of consistent harmonic structures, the extensive sound manipulations of the material, the superimposed electronically produced transformations, and the unconventional tech-

niques used by the performers, dictate new ways to talk about the range of results that are tied to the score directives.

But, beyond that, this paper asks a crucial question: if this piece is not about what is written on the score, what is it about? Fabbricciani has pointed out that precise notation in Nono's works constitutes an impoverishment. But what is it that is lost? Is there something else in the work, beyond fully determined pitch and the technological apparatus, which should draw our attention? And if so, where is it? Does it dwell in the score, in the documentation of the work, or somewhere else?

I will trace Nono's basic conceptions from the early 1950s until the last decade of his life, unearth them in *A Pierre*, demonstrate that the latter is a work that neither sprang out from scratch nor as a deviation from the progressive development of his output, and finally argue that Nono's ideas undergo a philosophical transformation, with respect to his notions about philosophy of history, underneath the technical and aesthetic properties of his work. This transformation is part of Nono's gradual shift towards his so-called late style.

*A Pierre*, along with a larger number of his late works, do not constitute a 'second,' 'private,' 'abstract,' or 'metaphysical' phase in his output, as various scholars have repeatedly claimed by disregarding the philosophical and aesthetic background of these notions; but rather, they are part of a larger historical trajectory, which amalgamates all the ostensibly heterogeneous aspects of his work under a common thread: transformation toward negative dialectics, the abstraction of Utopia, and the overcoming of avant-garde's metaphysics. This ceaseless transformation is the ubiquitous locomotive of this trajectory and the connective nexus that knits *A Pierre* with the rest of his earlier works and elevates it into the sphere of utopian listening.

## An Articulation of Mobility: *Con Luigi Dallapiccola* and the Musical Object

ANTON VISHIO

*An articulation of mobility*: so Richard and Mazzolini designate the score of *A Pierre* in its relationship to an aesthetic of performance not fully inferable from it. A sonic landscape loosened precipitously from its moorings in conventional

notation poses a provocation to the "strong work concept," as Zattra, Burleigh and Sallis have argued; and thus it is at the core of the challenges this composition poses to anyone, analyst or performer, who would strive to interpret it. On the surface, the earlier *Con Luigi Dallapiccola* would seem to have a much more comfortable relationship between score and sound; but I argue to the contrary, that the later work helps clarify the nature of the earlier's fundamental instabilities, its no less powerful challenges to interpretation. Michel has commented on the "discrete" nature of Dallapiccola's timbral language, in the service of canonic procedure; it is as if Nono has reversed this polarity, allowing timbre to emerge into the foreground while the musical characters it supports recede from the light.

Mobility is surely implicit in the performance apparatus of *Con Luigi Dallapiccola* — from its roughly concentric setup radiating outwards from the central core of "fratello" plate bells, to a kind of choreography as the players move (in "gym shoes"!) from instrument to instrument, to certain specific playing instructions. But it is even more crucially instantiated in the animation of its sounds, along a continuum of granulation from the relatively coarse rolls on the "bambù" to the aural halo of inharmonic resonance to the fine-grained buzzing of ring modulators, and their constant recombination — a recirculation that eschews the formation of solid "objects" of traditional analytical focus. Pitches are present but characteristically undermined via electronic means. Bars 61-65 are crucial to my reading of the form of the piece, as they are for Davismoon, but as a "critical mass," a kind of maximal shapelessness; the following music strives to attain the status of an object, but falls short, gradually reverting to the initial state of disintegration: a world is nearly brought into being, but it proves to be ephemeral — "a mass," as Nono cites Antonio Gargano, "that has not yet found the basis of its own codification."
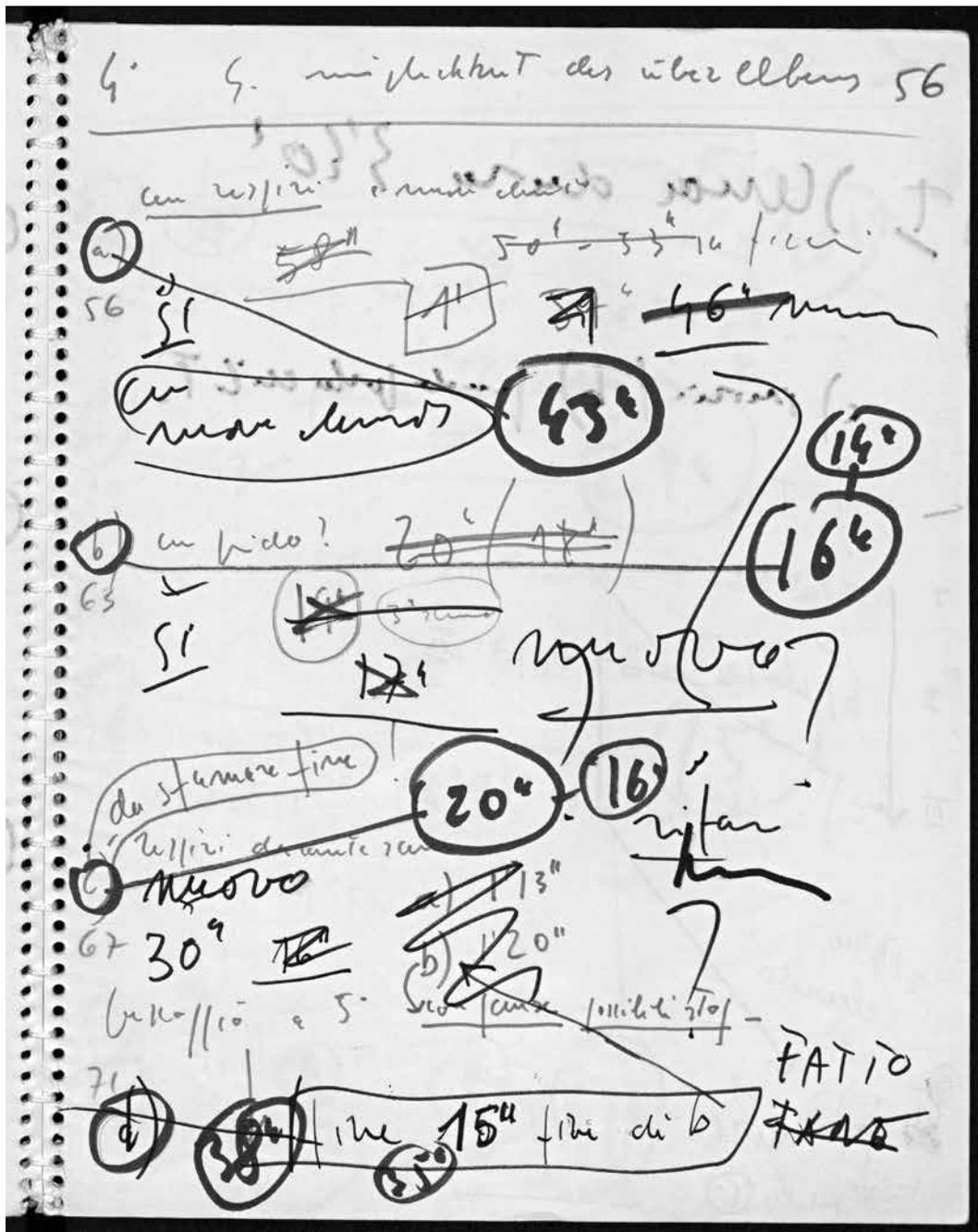
ABOVE   Page from Luigi Nono's sketchbook for *Ricorda cosa ti hanno fatto in Auschwitz*. Reproduced with kind permission of Archivio Luigi Nono, Venice © Luigi Nono heirs.

## **Ricorda cosa ti hanno fatto in Auschwitz**
### for tape (1966)

Tape conjures reality, and at the same time masks its source. The sound of a cry or a gong may enter our consciousness as a visceral connection with the outside world, or it may be distorted and manipulated beyond recognition. In this work, with the title *Remember What They Did to You in Auschwitz*, we hear a jumble of vocal and electronic sounds whirled around the room; some are distant and barely audible, some close and aggressive. There are no clearly discernable words and no underlying text. But the vocal utterances, always in motion, seem like they should be comprehensible, if we could only listen closely enough.

Nono created the work from taped interludes that he had composed for Peter Weiss's play, *The Investigation* (*Die Ermittlung*, 1965). This "documentary play" was based on the first Auschwitz trials in Frankfurt, Germany, which had begun two years earlier and were still ongoing. At a time when awareness of the Holocaust was just beginning to seep into public consciousness in Germany, Weiss's controversial work used verbatim testimony from witnesses at the trial. The director, Erwin Piscator, who had pioneered avant-garde political theater in Berlin before the war, asked Nono to write the music, suggesting that, since "the horror of the concentration camp cannot be portrayed [on stage], I thought of a chorus, such that the music would be for voices alone; in effect, the voices of the six million dead." Nono did not create traditional "incidental music" for this tricky assignment, but rather a series of brief snippets of taped sounds, ranging in length from 8 seconds to a little under 2 minutes, that interrupt, augment, and comment on the scenes. He prepared these with the help of Marino Zuccheri, sound engineer of the Studio di Fonologia in Milan

(RAI), who also assisted in the process of adapting the *Ermittlung* material to create *Ricorda*, a continuous 11-minute piece with a coherent dramatic arc.

*Ricorda* employs a vivid sonic vocabulary derived from sources including solo soprano (Stefania Woytowitz), the Children's Chorus of the Piccolo Teatro, Milan, a mixed chorus, electronically generated sounds, and instrumental sounds (woodwind, brass, and percussion). In addition to the *Ermittlung* material, other sources include recordings made for *Diario polacco '58* as well as recorded excerpts from several of Nono's earlier works, including *Cori di Didone* and *La fabbrica illuminata*, as Matthias Kontarsky has pointed out. Nono and Zuccheri manipulated the pre-existing sounds by combining different material on simultaneous tracks and by recording identical excerpts at slightly different speeds, leading to multilayered echo effects. The electronically generated sounds include high pitched hissing and whistling, which Carola Nielinger-Vakil associates with the "death by gas" passage in Weiss's play. Although the chorus and solo voice do evoke a special "human" quality, in Nono's composition the acoustic and electronic material are blended, sometimes to the point of being indistinguishable. Rather than setting up an opposition between humans and technology, Nono shows how they are mutually interdependent.

From the start, Nono intended the work to have a spatial dimension. As he wrote to Piscator, the tape should be "diffused in the hall with various speakers (right – left – front – back – above and so forth)." The resulting multidimensional sound, like memory itself, is sometimes near, sometimes distant, sometimes clear, and sometimes indistinct. Nono's composition is not a commemoration of the Holocaust or a memorial to its victims, but rather an acoustic space that sets listeners' imaginations into motion, leading them to confront the unthinkable, while refusing to allow any retreat into the safe space of complacency.

— *Anne C. Shreffler*

# La lontananza nostalgica utopica futura
## for solo violin and 8 tapes (1988–89)

The full title of Luigi Nono's work reads *La lontananza nostalgica utopica futura. Madrigale per più 'caminantes' con Gidon Kremer, violino solo, 8 nastri magnetici, da 8 a 10 leggii* can be translated as *The nostalgic, utopian, future far-distance. Madrigal for 'wanderers' with Gidon Kremer, solo violin, 8 magnetic tapes and 8 to 10 music stands*. Nono recorded Kremer improvising on the violin, then collaged those sounds along with "musique concrète": chairs scraping, objects banging, voices speaking. In performance, the diffusionist selects and presents elements from the recorded material, while the violinist plays six sections of music, each from a different location in the concert hall.

Nono took inspiration for many of his late works from an inscription on a monastery wall in Spain: "Caminante, no hay caminos hay que caminar." "Wanderer, there is no way, there is only walking." In *La lontananza nostalgica utopica futura*, journeying becomes an explicit and theatrical element. The violinist embodies a "wanderer" by walking through the performance space, navigating an electroacoustic soundscape that is at times ominous and jarring. We view this "wandering" not only as an evocation of a basic human condition of making one's way through life, but also as a reference to those displaced by war: emigrants, refugees, and "alien" residents in foreign lands.

In sections of the piece, Nono indicates for the violinist to sing while playing, joining the instrumental part at the unison, fifth or octave. This vocal dimension illuminates Nono's polyphonic conception of the work as a "madrigal" and hearkens back to his early studies of Renaissance music. With the live voice, *La lontananza* becomes an even more poignant human drama, one that turns inward in its third section, described by Nono as a "serena visionata." In this segment of the piece, the violinist sings in harmony with the instrumental lines: long, very hushed two- and three-part harmonies that hover amid long silences and electronic rustlings.

Our pair of performances at the *Utopian Listening* conference offer us the opportunity to explore and demonstrate the variable aspects of Nono's elec-

troacoustic work. While the violinist performs the music in a fixed sequence, the notation is unmeasured and the temporality is open-ended. Very long fermati, tempi specified as ranges rather than specific values, and the fluctuating pace of the violinist's walking between sections all invite interpretation and improvisatory response to the electroacoustic environment. The electronics are flexible and performative in a very different way: the actual timings of events are fixed (originally on multi-track magnetic tape, now as eight sound files), but the diffusionist is invited by the composer to select some sound events while suppressing others, sculpting dynamics and cumulative textures and spatial positions to create new sonic combinations at each performance.

The real-time encounter between the very different types of freedoms offered to the violinist and the diffusionist, and between the aural characteristics of the unamplified violin and the immersive surround-sound electronics, lead to new expressive qualities and experiences with each performance, and make this work challenging and fascinating to perform. It is only at the conclusion of the piece that the two performers' modes of expression really join: the violinist's final note is captured via microphone by the diffusionist and replayed and extended, as the violinist leaves the room. The ghostly note becomes part of the electroacoustic world with which the performing violinist had been juxtaposed.

*— Chris Burns & Miranda Cuckson*

# La fabbrica illuminata
## for soprano and four-channel tape (1964)

Luigi Nono dedicated his work *La fabbrica illuminata* (*The Illuminated Factory*) to the workers at the Italsider factory in Genova. The piece sheds light on the injustices that faced the workers — a dangerous workplace environment, low wages, and physical and mental anguish brought on by constant toil. The post-World War II "economic miracle" of industrialization in Italy came at human cost.

The tape part was generated from sounds that Nono recorded at the Genoa-Cornigliano Italsider factory (noises of the factory itself, including the blast furnaces and the entire 1½ km of steel production, other sounds in the building, such as mice, and the workers' voices) as well as recordings of German mezzo-soprano Carla Henius and the RAI Milan chorus singing, murmuring, shouting, and speaking, fused with electronic material and elaborated upon for two months at the Studio di Fonologia of RAI in Milan in collaboration with engineer Marino Zuccheri. The voice of the live soprano interweaves with these fixed recorded elements, unifying past and present and creating dialogue. Nono wanted the piece to change according to the situation of each performance — he himself altered the volume levels, speaker placement, and other elements in response to the individual performer and what she was doing at each moment, what he felt he wanted to emphasize on a given occasion, and the space in which the work was performed (which included performances for factory workers).

In the final section of *La fabbrica illuminata*, the voice of the live soprano emerges out of the tape part, a single voice offering solace and strength. As in other works by Nono from this period, such as *Intolleranza 1960* (1961) and *Canti di vita e d'amore: sul ponte di Hiroshima* (1962), the solo soprano expresses an intensity of hope that urges us toward a better future.

## La fabbrica illuminata

per soprano e nastro magnetico a quattro piste

su testi di
Operai dell'Italsider — Genova
Contratti sindacali, elaborati da Giuliano Scabia
Giuliano Scabia (b. 1935)
Cesare Pavese (1908-1950): finale — frammento da "Due poesie a T."

## The Illuminated Factory

for soprano and four-channel magnetic tape

on texts by
Workers from the Italsider factory in Genoa
Trade union contracts, elaborated by Giuliano Scabia
Giuliano Scabia
Cesare Pavese: finale — fragment from "Two poems for T."

1

fabbrica dei morti la chiamavano
esposizione operaia
a ustioni
a esalazioni nocive
a gran masse di acciaio fuso
esposizione operaia
a elevatissime temperature
su otto ore solo due
ne intasca l'operaio
esposizione operaia
a materiali proiettati
relazioni umane per accelerare
i tempi
esposizione operaia
a cadute
a luci abbaglianti
a corrente ad alta tensione
quanti MINUTI-UOMO
per morire?

1

factory of the dead they call it
worker's exposure
to burns
to noxious fumes
to large quantities of molten steel
worker's exposure
to extremely elevated temperatures
out of eight hours the worker
pockets only two
worker's exposure
to projectile materials
human relations in order to speed
up the time
worker's exposure
to falls
to blinding lights
to high voltage
how many MAN-HOURS in
order to die?

**2**

e non si fermano                         MANI di aggredire,

            ININTERROTTI        che vuota le ore

al CORPO                nuda afferrano

          quadranti, visi:              e non si fermano

guardano  GUARDANO  occhi fissi:  occhi mani

sera                giro del letto

      tutte le mie notti           ma aridi orgasmi

TUTTA la città      dai morti         VIVI

           noi          continuamente     PROTESTE

la folla cresce parla del MORTO

        la cabina detta TOMBA

            tagliano i tempi

               fabbrica come lager

                   UCCISI


**2**

and they do not stop                 HANDS attacking,

            UNINTERRUPTED      that empty the hours

on the BODY             nude they grasp

          clock faces, faces:          and they do not stop

they look  THEY LOOK  eyes staring:  eyes hands

night                turning of the bed[1]

      all of my nights           but arid orgasms

ALL of the city      of the dead         LIVING

           we         continually     PROTESTS

the crowd grows talks of the DEAD

        the cabin known as TOMB

            they cut time[2]

               factory like concentration camp

                   KILLED

**3**

| passeranno i mattini | mornings will pass |
| passeranno le angosce | anguish will pass |
| non sarà così sempre | it will not always be like this |
| ritroverai qualcosa | you will find something |

---

1. "giro del letto" is difficult to translate. It is not a phrase typically used in Italian and seems fragmentary. Two possible meanings are: 1. tossing and turning in bed, and/or 2. needing to work in continuous shifts to have enough money — for example, the wife working by day and the husband by night.

2. The idea of this phrase is that workers are always encouraged to hurry up, to try to save time, in order to get more produced in less time.

*— program notes and translations © 2007–2016 Stacey Mastrian*

# Post-prae-ludium n.1 per Donau
## for tuba and live electronics (1987)

Written for the tubist, jazz musician, and improviser Giancarlo Schiaffini in collaboration with the SWR Electronic Music Studio, *Post-prae-ludium n.1 per Donau* traces a lyrical odyssey at the outermost limits of what Nono reveals to be a singularly delicate instrument. Here the act of listening, the act of searching within listening that Nono described as 'tragic' in the subtitle to *Prometeo*, is thematicized for the interpreters through the element of improvisation. While the stations of the single lyrical trajectory are defined, the steps of that path are left open to the instance of hearing. Hearing is here drawn into two registers: the minute details of sounds whose intimacy and nearness exacerbates the fact of their incommensurable difference, and the elemental contrasts between the poles of sonority traversed and navigated by the interpreters throughout the course of the work.

As in many of his late works, here Nono explicitly challenges the notion of interpretation. While in a work such as *La lontananza nostalgica utopica futura*, focus is drawn to the record of a momentary encounter with a particular musician, or, alternatively, in *Omaggio a György Kurtág*, where unique sonorities produced by the mixture of the quartet are turned to static looping echoes by the musician controlling the electronics, here in *Post-prae-ludium* what is central is the interpretive act of selecting and ordering material drawn from a prescribed domain into a whole.

In this work, demands are made at an outer limit of the possibility of traditional collaboration. How do multiple individuals shape chamber music with sounds as fragile as these, and in a context where echoes of the piece itself remain present amidst the interpretation in unforeseeable ways? How does one act and listen within a work which, technically speaking, is contained so manifestly within a pre-programmed process of auto-audition? Here this process recalls Walter Benjamin's writings on the angel of history, set by Nono in *Prometeo*: as Benjamin's angel is thrust forward in time through the force of history's catastrophic accumulation, so too here the delayed echoes of the piece's past drive the interpretation and the work forward through time. The lyricism of the piece is enacted against the grain of the cumulative echo. Is the literalness of these echoes and the poignancy of such lyricism not a dramatized call by Nono to pursue this dynamic into all musical listening?

The interpretive challenges of *Post-prae-ludium*, as with all of Nono's late music, encourage one to turn to and recognize the extremity even in much more ordinary listening and interpretive undertakings. In what forms do all musics search for the frontier of the sounds which make them up, driven forth by their own past, their own history? What kind of intensity is lent to sonorities that listen, transfixed as these sonorities are, to the space between themselves and their predecessors? I for one am grateful as a musician for every opportunity to ask such questions with the force that Nono encourages.

— *Max Murray*

# A Pierre. Dell'azzurro silenzio, inquietum

for contrabass flute, contrabass clarinet, and live electronics (1985)

Luigi Nono wrote *A Pierre. Dell'azzurro silenzio, inquietum* in honour of Pierre Boulez's sixtieth birthday. The published score bears the dedication "A Pierre Boulez per il 26-3-1985" and covers exactly 60 bars in common time at a very slow tempo (quarter note = 30). The work was first performed on 31 March 1985 in Baden-Baden (BRD). *A Pierre* is a trio for two acoustic instruments and a third musician who oversees the live electronic manipulation of sound, notably the dynamic output of the speakers at the front and back of the hall. As such, it belongs to an impressive list of chamber music pieces, most involving some form of live electronics, which Nono composed during the last ten years of his life.

The composer provided two texts as program notes for performances of *A Pierre*. The first, in French, served as notes for the presentation of the work at the Festival d'automne in Paris on 5 October 1987. Nono evoked Paris and the rumours of revolutionary change that have resonated in that city for the past two centuries. He alludes to the French Revolution, Boulez's apartment in the 1950s, and to the founding of IRCAM in the 1970s. The second text is a short poetic elaboration in Italian written for the liner notes for an LP recording (Edition RZ 1004) of *A Pierre*, released in 1990. It is worth citing the original Italian text and its translation.

| | |
|---|---|
| Più cori continuamente cangianti | Diverse choirs continuously changing |
| per formanti di voci — timbri — | for formants of voices — timbres — |
| spazi interdinamizzati | interdynamic spaces |
| e alcune possibilità di | and some possibilities of |
| trasformazione | transformation |
| del live electronics.[1] | through live electronics. |

In both texts, Nono focuses on the idea of fleeting fragments of voices that inhabit spaces, rendering them dynamic and evoking the possibility of transformational change through the use of new technology. The Italian text also comes close to circumscribing the lyrical content of this music. Nono's commitment to social justice and human dignity is well known and a central component of his achievement. However, his extraordinary ability to poeticise sound and render space audible is often neglected, especially on this continent. In a conference in France in 1987, Nono noted that Thomas Tallis's *Spem in alium* (composed after 1567) explores acoustic space and brings it to life, enabling it to sing. "Tallis … fait que l'espace même devient à chanter."[2] *A Pierre* can also deliver this remarkable experience to the attentive listener.

1.  Luigi Nono, *Scritti e colloqui*, vol. I, Angela Ida De Benedictis and Veniero Rizzardi eds. (Lucca: LIM and Ricordi, 2001), p. 495.
2.  Luigi Nono, *Écrits*, Laurent Feneyrou ed. (Paris: Christian Bourgois, 1993), p. 275.

— *Friedemann Sallis*

# Das atmende Klarsein
## for small chorus, bass flute, electronics & tape (1981)

The origins of *Das atmende Klarsein*, [The Breathing Clarity] are intimately bound up with Nono's and Massimo Cacciari's long path toward *Prometeo*. As part of their discussions, Cacciari wrote to Nono in August 1980 proposing an introductory passage for *Prometeo* that would draw on Rilke's *Duino Elegies*. Nono sketches for *Das atmende Klarsein* show him first conceiving of it as a stage work with a large ensemble; only gradually did he settle on the final forces of bass flute, twelve-voice chorus, and live electronics. The overall form also continued to evolve considerably before Nono settled on the plan of four sections for the choir alternating with four sections for the solo flute. The first performance took place in May 1981.

**Das atmende Klarsein**

[ C H O R A L   S E C T I O N   I ]

<u>after a late storm    …    the breathing clarity    …</u>

[ C H O R A L   S E C T I O N   I I ]

*Toward the well-built abode of Hades,*  WE too  **A PURE**
*on the right there is a FOUNTAIN*  Near the dwellings of Hades  **HARVEST LAND**
*and near it, erect, a white*  Shall find a SPRING  **INTO THE OPEN**
  *CYPRESS*

**<u>IF THERE WOULD BE A PLACE</u>**  *But further on you will find*
**<u>WHERE LOVERS WOULD SHOW</u>**  *from the lake of Mnemosyne*
**<u>THEIR TOWERS</u>**  *Water freshly flowing*
**<u>OF JOY</u>**  **INTO THE OPEN**

[ C H O R A L   S E C T I O N   I I I ]

**DAY:**  **LOOK:**  **SAY:**  **LISTEN:**
I am son of Earth  I have been calling the lovers  *I am the son of Earth*  One of the Messengers comes
And of starry Heaven  From their graves would come  *And starry Heaven*  He carries off glorious fruits
I am parched with thirst  **INTO THE OPEN**  *Give me, then,*  **OF JOY**
**And I am destroyed**  *To drink from the*  **INTO THE OPEN**
  *FOUNTAIN*

[ C H O R A L   S E C T I O N   I V ]

A MOMENT  **<u>AN HOUR</u>**  *Hail,    Hail,    Hail*
NOT EVEN A MOMENT  **<u>NOT SO MUCH AS AN HOUR</u>** *after having had an experience*
AND ALL BECOMES  **<u>SCARCELY MEASURABLE</u>** *Such as you never had before*
IN HIS PASSIONATE SOUTH  **<u>FILLED WITH BEING</u>** *Hail*

**A MOMENT**  <u>BETWEEN TWO MOMENTS</u>  *EXPERIENCE*
**IMMEASURABLE**  <u>BEING HERE IS MUCH</u>  *SUCH AS YOU NEVER HAD BEFORE*

<u>OUT OF THE DARKNESS  STEPS A **MANY-COLORED REVELATION**</u>
<u>BETWEEN RIVER AND STONE</u>
**<u>the breathing clarity</u>**
  **<u>INTO THE OPEN</u>**

The text, assembled by Cacciari and Nono, includes passages freely adapted from Rilke's *Sonnets to Orpheus* and his *Duino Elegies*, from which Nono takes the title of the work: "After a late storm, the breathing clarity." The other source for the text are fragments from golden Orphic funeral leaves from the fourth century B.C. that were intended to help the deceased find their way to the underworld. The inscriptions served to remind the departed to ask permission in the afterlife to drink at the fount of Mnemosyne, the goddess of memory. As described by Erika Schaller in the DVD commentary that accompanies the score, "by doing this the dead would not be condemned to rebirth. The water would make it possible to remember one's own previous divine life and to achieve eternal life." The Greek and German citations are accompanied by passages in Italian derived from the other texts; due to the simultaneous presentation and further fragmentations of the three languages in Nono's setting, the final result is like a palimpsest of interpenetrating layers of time.

Every aspect of the piece explores different facets of a search for a utopian clarity and freedom of thought, along with a breaking free from time by collapsing history into a single moment, resonating with Cacciari's reading of Walter Benjamin's "Theses on the Philosophy of History." Nono creates a sense of timelessness and stasis through his treatment of the rhythm that dissolves any sense of meter, by the very limited harmonic material in the choral sections, and through the delays and other manipulations produced by the live electronics that offer us an alternative to the temporality of our everyday experience.

Carola Nielinger-Vakil describes *Das atmende Klarsein* as depicting the decisive moment of the "human soul at the crossroads between forgetfulness and memory." This plays out in the contrast between the purity and transparency of the choral passages, which Nono described as representing "an ideal of classical

Das atmende Klarsein

nach spätem Gewitter ... das atmende Klarsein...

Εἰς Ἀΐδαο δόμους εὐῆρεας
ἔστ' ἐπὶ δεξιὰ ΚΡΗΝΑ
Πὰρ δ' αὐτὸν ἑστηκυῖα λευκὰ
ΚΥΠΑΡΙΣΣΟΣ

Auch NOI
Verso le case di ADE
Troveremo una FONTE

EIN REINES
FRUCHTLANDS
INS FREIE

ES WÄRE EIN PLATZ
ZEIGTEN DIE LIEBENDEN
IHRE TÜRME
AUS LUST

προσθεν δὲ εὑρήσεις
τᾶς Μναμοσύνας ἀπὸ λίμνας
ψυχρὸν ὕδωρ προρέον
INS FREIE

DÍ :
Sono figlio di Terra
e di Cielo stellato
Sono arso di sete
καὶ ἀπόλλυμαι

SIEHE :
Da rief ich die Liebenden
Es kamen aus Gräbern
INS FREIE

EIΠEIN :
Γῆς παῖς εἰμί
καὶ οὐρανοῦ ἀστερόεντος
δότε μοι
πιεῖν ἀπὶ τᾶς ΚΡΗΝΗΣ

Ascolta :
Viene una dei Mesi
Leva frutti gloriosi
AUS LUST
INS FREIE

UN ATTIMO    EINE STUNDE    χαῖρε  χαῖρε  χαῖρε
NEPPURE UN ATTIMO    NICHT GANZ EINE STUNDE    παθὼν τὸ πάθημα
E TUTTO DIVENTA    KAUM MESSLICHES    χαῖρε  χαῖρε
IN SEINEM FÜHLENDEN SÜDEN    VOLL DASEIN    χαῖρε

UN ATTIMO    ZWISCHEN ZWEI WEILEN    παθὼν
IMMISURABILE    HIER SEIN IST VIEL    τὸ πάθημα

AUS DUNKEL STEIGT   EIN BUNTES OFFENBARES
ZWISCHEN STROM UND GESTEIN
das atmende klarsein
                INS FREIE

ABOVE   Luigi Nono's original presentation of the text to *Das atmende Klarsein* in German, Greek, and Italian as in the preface to the score.

antiquity," while the flute part represents "the future, new possibilities." Flutist Roberto Fabbriciani describes the flute part in terms of "a sort of nostalgia for the future, while the choir represents nostalgia for the past." At the same time, the instrumental and vocal parts are intimately related, with the choral harmonies at the opening derived from the flute multiphonics we hear in its first section, while passages in the flute at times evoke a sense of a veiled memory of the choral music.

The other major source for *Das atmende Klarsein* was Nono's intensive working relationship with Fabbriciani in the context of the technological resources and technicians of the Experimental Studio of the Heinrich-Strobel Stiftung in Freiburg. Fabbriciani's demonstrations of extended performance techniques on the flute with multiphonics, percussive sounds, extreme dynamics, and the sounds of singing, whistling, and breathing through the instrument, can be heard in the tape part that is the basis of the closing improvisation. Fabbriciani writes: "Gigi and I were in agreement with the idea that music is a thought in the making, in which exploration, with all the risks this involves is a necessity…In this way the fantastic ideas of the composer awaken the creativity of the interpreter and invite him to venture with his instrument to the extreme limits of his art." Not surprisingly, after the premiere in May 1981, Nono and Fabbriciani continued to modify the work with every performance. Central to this exploration were the ways the digital and analog electronic devices in the studio opened up new ways of conceiving of the sound of the flute. In the same way, working with microphones and electronics led to a new kind of extremely demanding choral singing that emphasizes very soft dynamics — notated as striving for a barely audible *ppppppp* — to achieve an air of inwardness and "fragility."

As charted by Nielinger-Vakil, over the course of the alternating choral and flute movements — taking altogether about 35 minutes — there is a gradual loss of the clarity of the introduction, which each choral section reworking the opening with further harmonic complications and electronic manipulations. In turn, each of the flute movements opens up different sonic horizons, starting in the opening section with a series of multiphonics that are spatialized through the Halophone (a device developed in the 1970s, now simulated through software) which sends the sounds in clockwise and counterclockwise rotations around the six speakers. The second flute section unfolds a row with microtonal variations, with the live flute answered by two delays of 1.5 and 3 seconds in the back speakers to create a kind of slowly moving polyphony. In the third section the flute uses difficult-to-control natural harmonics and whistle tones, which are then pitch-shifted up and down to create a kind of microtonal cloud.

The work closes with a six-minute virtuosic improvisation featuring the live flutist interacting virtually with Fabbriciani's recorded part, which is spatialized around the room. This radical reimagining of what a flute can do resonates with Nono's linkage of *Das atmende Klarsein* with Robert Musil's notion of a "sense of possibility" in *The Man Without Qualities*. Musil writes of this sense of possibility: "Whoever has it does not say, for instance: Here this or that has happened, will happen, must happen; but he invents: Here this or that might, could, or ought to happen. If he is told that something is the way it is, he will think: Well, it could probably just as well be otherwise. So the sense of possibility could be defined outright as the ability to conceive of everything that there *might be* just as well, and to attach no more importance to what is than to what is not. The consequences of so creative a disposition can be remarkable, and may, regrettably, often make what people admire seem wrong, and what is taboo permissible, or, also, make both a matter of indifference. Such possibilists are said to inhabit a more delicate medium, a hazy medium of mist, fantasy, daydreams, and the subjunctive mood. Children who show this tendency are dealt with firmly and warned that such people are cranks, dreamers, weaklings, know-it-alls, or troublemakers."

Nono writes of experiencing the possibilist's "broadening of the imagination" through the sense of exploration offered "by the indispensible and patient Experimental Studio in Freiburg, in the enchanting vibration of the "black forest" by Fabbriciani's surpassing innovations… and by the passionate nostalgia between past and future of the pure voices of the chorus."

— *Joseph Auner*

# ..... sofferte onde serene ...
## for piano and tape (1976)

This piece, whose title can be translated as "serene waves, endured (or suffered)," literally, "endured, serene waves," was created in 1976 at the RAI Studio di Fonologia in Milan. It marks the beginning of the composer's late creative period, in which, following series of works with overtly political themes, Nono moved to a more introspective style. Nono entertained a close friendship with the pianist Mauricio Pollini, with whom he also collaborated on *Como una ola de fuerza y luz* for orchestra, soprano, piano and magnetic tape. Both artists had suffered the death of family members during the year 1976, and the piece is as much a sign of appreciation for Pollini's playing as a catharsis for their mutual grief.

Nono was particularly fascinated with Pollini's sound and pianistic approach. The tape material was drawn from recordings of Pollini improvising on certain pitch collections provided by the composer. The fact that there was no score to the recording of the tape material shows Luigi Nono's particular interest in using recordings to capture the essence of Pollini's playing, his percussive attacks, extremely varied articulation, and also his spontaneous gestures. The piano recordings were also mixed with recording of bells from the Giudecca in Venice, a very personal metaphor for the sense of inexorable passing of time.

Nono described the tape part as 'neither contrast nor counterpoint' and the fact that the sonic material of the tape is drawn from pianistic sounds creates immense possibilities for a continuously evolving and subtle relationship between these two acoustic levels. The tape at times shadows and echoes the piano, but there are also moments of dialog and moments of conflict between the two actors. The transitions between these various relationships are often created by the piano and tape being in contrasting temporalities, pushing each other and creating the different 'waves.'

While the relationship between piano and tape defines the different sections, these sections are made more distinct by use of unique pitch collections

and registers. This results in a fragmentation that can be interpreted as a way to create the illusion of impermanence.

There are only six reference points for the piano and tape to align in the score, which leaves the performers with the problem of synchronization for most of the piece. One can interpret this possibility for flexibility as Nono preferring the natural indeterminacy of human interactions as the piece unfolds, rather than attempting to prescribe more precise interaction.

Since the different relationships between piano and tape in ….. *sofferte onde serene …* are an intrinsic part of the dramaturgical aspect of the piece, the tape part truly needs to be interpreted and performed. Despite the tape being a form of fixed media, this demands a form of listening with a transformative potential for the performers, and encourages a level of communication comparable to that of purely acoustic chamber music. — *Julia Den Boer*
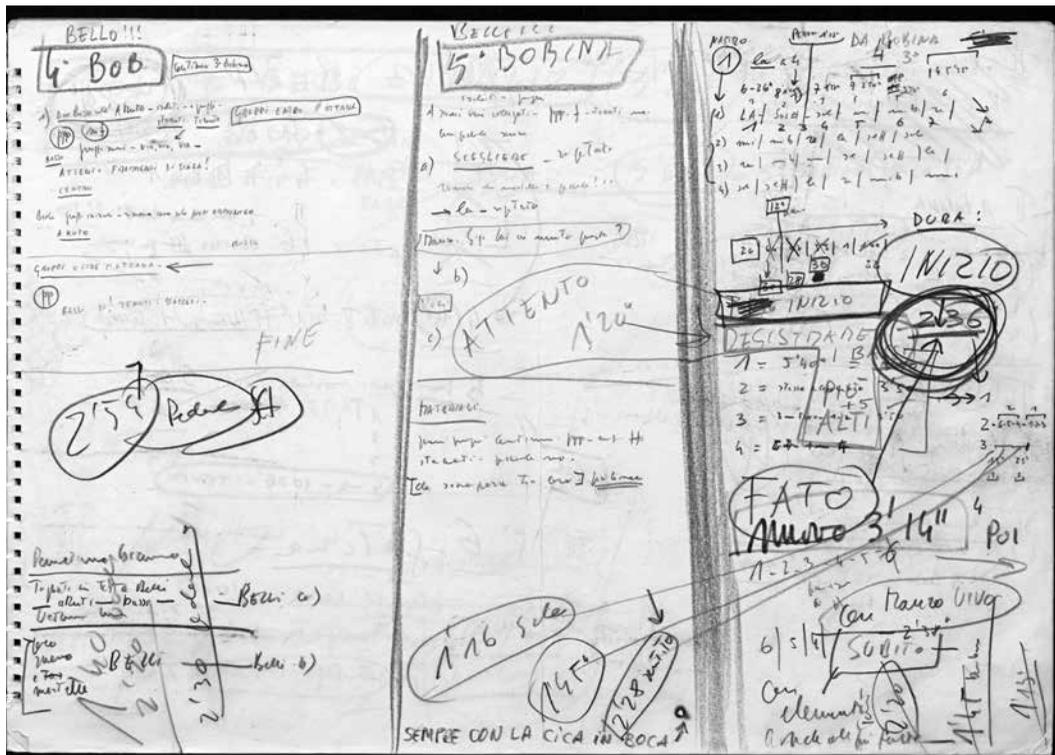


ABOVE   Page from Luigi Nono's sketchbook for ….. *sofferte onde serene …* Reproduced with kind permission of Archivio Luigi Nono, Venice © Luigi Nono heirs.

# Biographies

### IOANNIS ANGELAKIS

Ioannis Angelakis (b.1988) is a Greek composer currently pursuing his PhD in Music Composition in New York University. Further studies include bachelors (Aristotle University of Thessaloniki) and masters (Boston University) degrees in music composition under the tutelage of Christos Samaras and Joshua Fineberg respectively.

### JOSEPH AUNER

Joseph Auner is Professor of Music and Dean of Academic Affairs at Tufts University. Recent publications include *Music in the Twentieth and Twenty-First Centuries*, "Wanted Dead and Alive: Historical Performance Practice and Electro-Acoustic Music from Abbey Road to IRCAM," "Losing your Voice: Sampled Speech and Song from the Uncanny to the Unremarkable," and "Weighing, Measuring, Embalming Tonality."

### GIANMARIO BORIO

Gianmario Borio is professor of Musicology at the University of Pavia and director of the Institute of Music at the Fondazione Giorgio Cini, Venice. In 1999 he was awarded the Dent Medal by the Royal Musical Association. In 2013, he was Distinguished Visiting Professor at The Italian Academy for Advanced Studies in America. His publications deal with several aspects of the music of the twentieth century (theory and aesthetics, political background, audiovisual experience) and with the history of musical concepts and the theory of musical form. He is a fellow of the Academia Europaea.

### CYNTHIA BROWNE

Cynthia Browne is currently a PhD Candidate in social/cultural anthropology at Harvard University. Over the past two years (2013-2015), she has been undertaking dissertation fieldwork on art and structural change in the Ruhr region of Germany, in the wake of its industrial decline.

B

### IAN BURLEIGH

Ian George Burleigh is a research scientist writing scientific software for Jülich Centre for Neutron Science, outstation in Garching near Munich. In the past he was Assistant Professor of music technology at the University of Lethbridge, focusing on applications of computing in theory, performance, synthesis, and analysis of musical sound.

### CHRISTOPHER BURNS

Christopher Burns is a composer of chamber and electroacoustic music. As a performer, his practice ranges from improvisation with custom-built instruments to the recreation of classic works by composers including Cage, Lucier, Nono, and Stockhausen. Christopher teaches music technology at the University of Michigan School of Music.

### JOY CALICO

Joy H. Calico is Professor of Musicology and Director of the Max Kade Center for European and German Studies at Vanderbilt, and Editor-in-Chief of the *Journal of the American Musicological Society*. She is the author of *Brecht at the Opera* (2008) and *Arnold Schoenberg's* A Survivor from Warsaw *in Postwar Europe* (2014), published by University of California Press.

### ALÍPIO CARVALHO NETO

Alípio Carvalho Neto is a Brazilian saxophonist, composer, educator, and scholar dedicated to interdisciplinary music studies. Based in Rome, he works across a broad spectrum of musical idioms. In 2014, he received his PhD with highest honors in "Music History, Science and Techniques" from the University of Rome II Tor Vergata where he collaborates with the Master in Sonic Arts.

### ERIC CHASALOW

Eric Chasalow is a composer known for both electro-acoustic music and music for traditional instruments. He is co-curator of the The Video Archive of Electroacoustic Music, an oral history project chronicling pioneers of electronic music. Eric is the Irving G. Fine Professor of Music and the Dean of the Graduate School of Arts and Sciences at Brandeis University.

### CLAIRE CHASE

A 2012 MacArthur Fellow, Claire Chase is a soloist, collaborative artist, curator, and advocate for new and experimental music. She has given the world premieres of hundreds of new works for the flute, and she has championed new music by building organizations, forming alliances, pioneering commissioning initiatives, and supporting educational programs that reach new audiences. In 2001, Chase founded the International Contemporary Ensemble (ICE), where she currently serves as the co-artistic director in addition to playing over fifty concerts a year as an ensemble member. Chase has also released three celebrated solo albums, Aliento (2010), Terrestre (2012) and Density (2013).

### MIRANDA CUCKSON

Violinist/violist Miranda Cuckson is in great demand around the world as soloist and chamber musician and is one of the foremost performer-interpreters of contemporary music. She has recorded ten lauded solo/duo albums. She teaches at Mannes College/New School University and is director of Nunc.

### ANGELA IDA DE BENEDICTIS

Angela Ida De Benedictis (Paul Sacher Foundation, Basle) earned a PhD in musicology (Pavia University) and completed post-PhD work in Berlin on music and technology. She is a member of the Scientific Committee of the Archivio Luigi Nono. She has published books and essays on theory and analysis featuring twentieth-century music and has edited the writings of Luigi Nono (2000) and Luciano Berio (2013).

### CHRISTOPHER DELAURENTI

Christopher DeLaurenti makes installations, sound works, and multifarious live performances for exhibitions, concerts, and festivals, notably at Goldsmiths College (London, 2014), the Whitney Biennial (New York, 2012), and MoMA (New York, 2011). Christopher's writings have appeared in *The Stranger*, *Soundscape*, *The Believer*, *Signal to Noise*, and *Leonardo Music Journal*.

### JULIA DEN BOER

Pianist Julia Den Boer is a strong advocate of contemporary music. Based in New York, she performs internationally and has commissioned and premiered

D numerous works. Julia is a recipient of the Solti Foundation award and was awarded the Prix Mention Speciale Maurice Ohana at the 2012 International Orleans Competition. Her performances have been broadcasted on Q2, CBC Radio 2, the SWR and France Musique. Julia holds a doctorate from SUNY Stony Brook University where she studied under the guidance of Gilbert Kalish.

### PAULINE DRIESEN

Pauline Driesen studied musicology at KU Leuven and Humboldt University Berlin. She continued doctoral studies at the Department of Art, Music and Theatre Studies of Ghent University, with a PhD focusing on Luigi Nono's *Prometeo*. Grants from The Research Foundation Flanders have given her the opportunity to study the original sketches of the composer at the Archivio Luigi Nono in Venice.

### JOSHUA FINEBERG

Joshua Fineberg is a composer whose works are widely performed in the US, Europe, and Asia. He is a Professor of Music at the Boston University CFA School of Music where he also serves as the founding director of the Boston University Center for New Music and director of the electronic music studios.

### DAVID HARRIS

David Harris is Director of College Choirs and Lecturer at the College of the Holy Cross. He specializes in new music, American music, and the intricacies of communication in choral singing and conducting. In addition to his work at Holy Cross, he founded Triad: Boston's Choral Collective, a group that specializes in contemporary choral music.

### KYLE KAPLAN

Kyle Kaplan is a PhD student in Musicology at Northwestern University, where he also affiliated with the Gender and Sexuality Studies program. His research focuses on music and intimacy, theorizing listening practices through collaboration and interdependence during the postwar era. He holds degrees from UCLA and McGill University.

### TRENT LEIPERT

Trent Leipert recently completed his PhD in Music History and Theory at the University of Chicago. His research focuses on ways in which the composition of the subject — as a philosophical, psychological and political problem of late modernity — becomes the subject of musical composition and production in the later 20th and 21st centuries. He teaches at Columbia College Chicago.

### MICHAEL LUPO

Michael Lupo is a PhD candidate in musicology at the Graduate Center (CUNY), an Adjunct Lecturer at The John Jay College of Criminal Justice, and an Assistant Editor at the *Répertoire International de Littérature Musicale* (RILM). His dissertation will trace Luigi Nono's social engagement through epistolary documentation and compositional techniques.

### MARGARETHE MAIERHOFER-LISCHKA

Born in Regensburg (Germany) in 1984, Margarethe Maierhofer-Lischka has studied double bass, contemporary music, and musicology. Since 2013, she has been a PhD candidate and University Assistant at KUG Graz (project: "Staging Auditory Perception in Contemporary Music Theatre"). She is active as a soloist and has been involved in collaborations with Europe's leading ensembles, theatre productions, improvisation, and sound installations.

### STACEY MASTRIAN

Soprano Stacey Mastrian has performed at Teatro La Fenice (Venice), Konzerthaus (Berlin), Chapelle historique du Bon-Pasteur (Montréal), St. Peter's (Vatican City), Kennedy Center (DC), and Carnegie Hall and Lincoln Center (NY). Dr. Mastrian has been a Fulbright Grantee and Beebe Fellow to Italy and specializes in works by Nono.

### MAX MURRAY

Musician Max Murray has worked with various ensembles including the Staatskapelle Berlin, the SWR Ensemble Experimental Studio, and the Lucerne Festival Academy Orchestra, as well as having been a guest interpreter in the composition departments of the University of Huddersfield, and Stanford

University. He is currently completing a PhD in music composition at Harvard University.

### CAROLA NIELINGER-VAKIL

Carola Nielinger-Vakil is a freelance flautist and musicologist based in London (UK). She has published widely on the music of Nono, including *Luigi Nono: A Composer in Context* (Cambridge University Press, 2016). In collaboration with Martin Brady she has also written on film music by Paul Dessau. A list of her publications is available on Academia.edu.

### THOMAS PEATTIE

Thomas Peattie is Assistant Professor of Music at the University of Mississippi. He holds degrees in composition and musicology from the University of Calgary and a PhD in historical musicology from Harvard University. He is the author of *Gustav Mahler's Symphonic Landscapes* (CUP) and is currently preparing a monograph entitled *A Composer Listens: Luciano Berio's Nineteenth Century*.

### LUIGI PIZZALEO

Pianist, composer, and musicologist Luigi Pizzaleo was born in Como in 1971. He teaches History of Electroacoustic Music at the Conservatory of Rome. As a musicologist and music historian, he has published *MEV: Musica Elettronica Viva* (LIM 2014), *Il liutaio elettronico. Paolo Ketoff e l'invenzione del Synket* (Aracne, 2014), and *Musica elettroacustica a Roma* (EAI , 2014).

### PETER PLESSAS

Peter Plessas is a musician performing live electronics as his main instrument. He is pursuing research on verbal descriptions of timbral sound transformations. Peter taught performance of live electronics at IEM Graz and at Impuls Academy and is currently teaching computer music composition at the University of Music in Vienna.

### BRUCE QUAGLIA

Bruce Quaglia is a Visiting Lecturer at the University of Minnesota. His publications and presentations focus on topics in 20th-century music, including

the music of Schoenberg, Berio, and Nono. His research at the Archivio Luigi Nono (2012) has resulted in several conference papers, including a presentation at EuroMAC 2014.

### MARTIN RITTER

As a researcher, Martin Ritter is interested in the intersection of music, technology, and performance. As a composer he writes both electroacoustic and acoustic works. His work has been produced internationally. He holds a DMA in composition from the University of British Columbia and is currently pursuing a PhD in Computational Media Design at the University of Calgary.

### VENIERO RIZZARDI

Veniero Rizzardi is Professor at the State Conservatory of Padua and Lecturer at the Ca' Foscari University in Venice. He has edited scores by Luigi Nono and Bruno Maderna, and published essays and books on 20th-century music, including one on Miles Davis's recorded work. Together with with A. I. De Benedictis, he has edited various books, including the first English collection of Luigi Nono's writings (University of California Press, 2017). Co-founder and member of the Managing Board at the Luigi Nono Archive in Venice, he is also active as a curator and concert producer.

### FRIEDEMANN SALLIS

Friedemann Sallis is Professor at the School of Creative and Performing Arts, University of Calgary. Recent publications include *Music Sketches* (Cambridge University Press, 2015). He has obtained fellowships from the Paul Sacher Foundation and five consecutive research grants from the Social Sciences and Humanities Research Council of Canada.

### JAMUNA SAMUEL

Jamuna Samuel is Mellon postdoctoral teaching fellow in the Department of Music at the University of Pennsylvania. She has written, presented, and taught on analytical and historical issues of the Italian *Novecento*. She is at work on a book exploring Dallapiccola's influence on the postwar avant-garde of Maderna, Nono, and Berio, among others.

# S

### DOROTHEE SCHABERT

Dorothee Schabert studied history and literature in Freiburg and recording engineering in Berlin. Since 1987, she has been working as *Tonmeisterin* for broadcast and freelancing. She has written essays on the relationship between technology and aesthetics, especially in contemporary music, and she has created sound-installations in cooperation with other artists.

### MARGARET SCHEDEL

Margaret Schedel is a composer and cellist specializing in the creation and performance of ferociously interactive media whose works have been performed throughout the USA and abroad. As an Associate Professor of Music at Stony Brook University, she serves as Co-Director of Computer Music and is the Director of cDACT, the consortium for digital art, culture and technology.

### NURIA SCHOENBERG NONO

Daughter of composer Arnold Schoenberg, Nuria Schoenberg Nono was born in 1932. She met Luigi Nono at the premiere of her father's opera *Moses und Aron* in Hamburg in 1953. As she recalled to John Palmer in an interview in 1993, she and Nono were "engaged in Darmstadt and all our friends, all the young composers and many of my father's pupils were there." They married several months after the 1955 Darmstadt Festival. Nuria Schoenberg Nono was instrumental in establishing the Luigi Nono Archive in Venice in 1993 and is president of the Arnold Schönberg Center in Vienna.

### ANNE SHREFFLER

Anne C. Shreffler's research interests include the musical avant-garde in Europe and America, with special emphasis on the political and ideological associations of music. She has taught at the University of Chicago, the Universität Basel in Switzerland, and at Harvard University, where she is the James Edward Ditson Professor of Music.

### PAOLO SOMIGLI

Paolo Somigli is a pianist and assistant professor of Musicology and Music History at the Faculty of Education of the Free University of Bozen, Italy. He specializes in contemporary European and American music and in popular

music. His publications include an article on Nono's *Il canto sospeso* ("Musica Docta", 2015).

S

### TIM SULLIVAN

Tim Sullivan's research focuses on late 20th-century music, especially in regards to compositional structure and design. Recent presentations include papers on Grisey's last songs (McGill) and Schnittke's late style (Hamburg, Germany). He is currently Associate Professor of Music Theory/Composition at the Crane School of Music, SUNY Potsdam.

### TRIAD: BOSTON'S CHORAL COLLECTIVE

A collective of singers, conductors, and composers, Triad brings new music to life in Boston through the development and performance of choral works composed within the last 25 years. The group fosters close collaboration, building up the talents of its members and bringing outstanding music to the Boston community with seasonal concerts.

### HANS TUTSCHKU

Hans Tutschku studied composition in Dresden, The Hague, Paris, and Birmingham and participated in concert cycles with Karlheinz Stockhausen. He taught in Weimar, Berlin, at IRCAM in Paris, and is professor of composition and director of the electroacoustic studios at Harvard University since 2004. Tutschku is the winner of many international competitions, including Bourges, CIMESP Sao Paulo, Prix Ars Electronica, Prix Noroit and Prix Musica Nova.

### ALVISE VIDOLIN

Sound director, computer music researcher, live electronics interpreter, Alvise Vidolin has given his services to several important Italian and foreign institutions, and he has worked for Italian composers such as Luciano Berio, Luigi Nono, and Salvatore Sciarrino on the electronic realisation and performance of their works. He is co-founder and staff member of the Centro di Sonologia Computazionale at the University of Padova where he researches computer-assisted composition and performance. He held the chair of Electronic Music at Conservatory of Music in Venice from 1975 until 2009. He is also a member of the scientific committee of Fondazione Archivio Luigi Nono.

V

### ANTON VISHIO

Anton Vishio is an Assistant Professor of Music at William Paterson University. He received a PhD in music theory from Harvard University where his teachers included David Lewin and Donald Martino. A pianist and composer, he has presented papers on several 20th-century composers, including Babbitt, Krenek, Messiaen, and Xenakis.

### BRENT WETTERS

Brent Wetters is Adjunct Professor of Music at Providence College. He holds degrees in composition from the University of Michigan, the Ghent Conservatory, and Wesleyan. He received a doctorate in musicology from Brown (2012), where he completed a dissertation on the Darmstadt Summer Courses titled "Darmstadt and the Philosophical Turn."

### LAURA ZATTRA

Laura Zattra obtained her PhD at Sorbonne/Paris IV and Trento University. She collaborates with research centres, archives, and universities (Padova, De Monfort, Calgary, Sorbonne). She is a member of the Analysis of Musical Practices Research Group, IRCAM-CNRS, Paris. She is a lecturer at Padova University, and at the Parma and Rovigo Music Conservatories.

### PAOLO ZAVAGNA

Paolo Zavagna has published articles and edited books about electronic and computer music. He has performed sound projection and live-electronics of works by Ambrosini, Battistelli, Berio, Crumb, Nono, Reich, Romitelli, Sciarrino, in Paris, London, Milan, Florence, Venice, Udine, Strasbourg, and Prague. He received a commision from the 56 Festival Internazionale di Musica Contemporanea of la Biennale di Venezia. He is scientific co-director of the international journal *Music/Technology* and professor of electroacoustic music performance at the Conservatorio "B. Marcello" in Venice.

### EVAN ZIPORYN

Composer/clarinetist Evan Ziporyn (b. 1959, Chicago) is Director of the Center for Art, Science & Technology at MIT (CAST), where he has been on faculty since 1990. He holds degrees from Yale and UC Berkeley.

# Acknowledgements

## WE WOULD LIKE TO THANK

All of our participants, in particular our Special Guests, **Nuria Schoenberg Nono** and **Alvise Vidolin**, our coordinating team **Friedemann Sallis** and **Angela Ida De Benedictis**, our keynote speakers **Veniero Rizzardi** and **Gianmario Borio**, and our amazing musicians!

**Chris Swithinbank**, conference assistant at Harvard, for his superb organizational skills, for setting up the information infrastructure (emailing, Dropbox, etc.), and especially for his stunning designs for the posters and other publicity material.

**Chris Swithinbank** and **Monica Hershberger** (Harvard) for designing and editing the program book.

**Lesley Bannatyne** (Harvard) for designing and maintaining the conference website.

**Jeffrey Means** for his advice and help on musical matters.

**John Ellis** and his students at the Wentworth Institute of Technology for their preparation of the architectural installation "Interstices: The Space Between Arch-i-pelago"

We are especially grateful to the extraordinary Tufts team for their masterly handling of myriad technical details of the rehearsals and concerts, the conference presentations, the travel arrangements, catering, and local arrangements: **Jeffrey Rawitsch**, *Granoff Music Center Manager*; **Anna Griffis**, *Coordinator of Music Public Relations and Box Office*; **Julia Cavallaro**, *Administrative Coordinator*; **Johnny Redmond**, *Office Assistant*; **Prof. Paul Lehrman**, *Coordinator of Music Technology*; **Peter Atkinson**, *Music Event Technical Staff Lead*.

## Tufts University

**Edith Auner**, *Coordinator of Community Music and Outreach*
**Mary Auner**
**Dean Nancy Bauer**
**Dean Bárbara Brizuela**
**Prof. Alessandra Campana**
**Leigh Curley**
**Jacqueline Dejean**
**Dean James Glaser**
**Deborah Grupp Patrutz**
**David Kahle**
**Prof. Jamie Kirsch**
**Prof. David Locke**, *Chair of the Department of Music*

**Prof. John McDonald**

**Prof. Anne Mahoney**

**Prof. Vincent Pollina**

**Prof. Christian Zehl Romero**

**Scott Sahagian**

**Prof. Diane Souvaine**

**Donna Tyson**

**John Walsh**

**Amy Anyoha, Elliya Cutler, Jenny Fang, Allison McIntosh, Nikolas Shashok**, *Music Event Staff*

**Ben Averill, Lauren Caso, Michael Laurello, Andrew Jarowenko**, *Music Event Technical Staff*

# Harvard University

**Carol Oja**

*William Powell Mason Professor of Music*

*Chair of the Harvard University Music Department*

## Music Department Staff

**Nancy Shafman**, *Director of Administration*

**Karen Rynne**, *Financial Manager*

**Jean Moncrieff**, *Director of Events*

**Lesley Bannatyne**, *Managing Communications Coordinator*

**Evren Celimli**, *Building Manager*

**Bríd Coogan**, *Staff Assistant*

**Chris Danforth**, *Technical Manager*

**Kaye Denny**, *Front Office Co-Manager*

**Eva Kim**, *Assistant to the Chair*

**Mary MacKinnon**, *Undergraduate and Events Coordinator*

**Charles Stillman**, *Front Office Co-Manager*

**Seth Torres**, *HUSEAC Technical Director*