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**Centre d'Estudis i Documentació** **MAC BA**

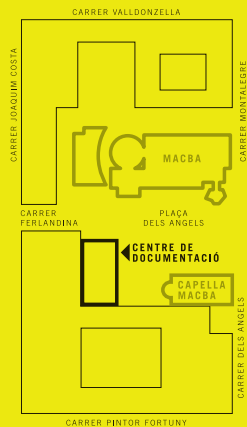
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**Exhibition opening hours**

Monday to Saturday, 10 am to 8 pm  
Sunday, 10 am to 3 pm

**Library opening hours**

Monday to Saturday, 10 am to 9 pm  
From August 1 to 24, the Library will remain closed



**MAC BA** Museu d'Art Contemporani de Barcelona

Plaça dels Àngels 1 - 08001 Barcelona  
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Con la col·laboració de



# Possibility of Action

## The Life of the Score

Robert Ashley, Eugènia Balcells, Llorenç Barber, David Behrman, Peter Bosch & Simone Simons, Jens Brand, Joan Brossa, John Cage, Cornelius Cardew, Morton Feldman, Richard Garet & Wolfgang von Stürmer, Yolande Harris, Juan Hidalgo, Brenda Hutchinson & Ann Chamberlain, Tom Johnson, Takehisa Kosugi, Annea Lockwood, Alvin Lucier, Matthew Marble, Walter Marchetti, Phill Niblock, Pauline Oliveros, Yoko Ono, Adam Overton, Lee Ranaldo, Alyce Santoro, Michael Schumacher, Leah Singer, Tanja Smit, Yûji Takahashi, James Tenney, Yasunao Tone, Christopher Williams, Christian Wolff

16 June – 5 October 2008

**Centre d'Estudis i Documentació** **MAC BA**

**Possibility of Action:**  
**The Life of the Score** explores musical notation in its broadest sense, considering both musical and visual transmission. Documents in the exhibition are juxtaposed to reveal unexpected connections and allow for new readings in which we not only imagine audible reverberations, but also experience the visual stimuli that certain forms of musical notation can provoke in the observer.

*Possibility of Action. The Life of the Score*, curated by Barbara Held and Pilar Subirà, marks the beginning of a collection being assembled by the MACBA Study Center with audio recordings and other documents that have been generated and continue to be generated through the fusion of music, sound and visual arts which is characteristic of our time.

This material includes not only editions of historic scores, but also documents related to contemporary compositions and work by artists who are not strictly working in the field of music, including sound art, experimental noise/art/rock, and the fringe areas between these and other creative media. Almost all of the recordings that can be heard in the exhibition are already accessible in the Library, and a large part of the scores included will remain in the archive of the Study Center once the show is finished.

This exhibition is closely related to *Lines of Sight*, a series of programmes on Ràdio Web MACBA (RWM) that examine how music is translated and transmitted. Both the radio programmes and this exhibition were inspired by a common interest, and further manifest the intention that underlies all of the MACBA's areas of activity: that is, to give support to the lesser known aspects of contemporary artistic expression by providing a space for dialogue and the exchange of ideas, and by promoting debate and research.

**Possibility of Action: The Life of the Score** documents a revolutionary change in the way we notate and transmit music, from early graphic scores by composers such as John Cage, Christian Wolff and Morton Feldman, to intermedia experimentation and contemporary sound art. The reading of these scores calls for a process of generating action (sounding or otherwise). This is an action to be performed, the outcome of which is unknown, and an end result that can never be repeated.

Much has been written with enthusiasm and idealism about this revolution, but there is one writer who expresses the same delight in the process of reading and writing as a performer feels in the space between an original score and her/his own creative inner world: the wonderful poet and classicist Anne Carson. In an essay entitled *Eros the Bittersweet*, Carson speaks of the astounding leap from an oral to a literate culture in archaic Greece, and of the way it resulted in and reflected a shift in the perception of the body and sense of self. The spoken word is transmitted on the wings of human breath; breath is all around us. "The inhabitants of an oral society live much more intimately blended with their surroundings than we do... perceptions of the world are breathed in and out through the skin surface of living beings and everything in the universe is potentially 'in touch' with anything else. (...) Oral culture and literate culture do not think, perceive or fall in love in the same way."<sup>1</sup> The act of imagining an alphabet and written words changes boundaries, which are the "edges" of words and of human beings. Writing separates words from each other, and separates the reader or writer from the environment.

Just as the Greeks invented an alphabet that was phonetic and symbolized not objects in the real world but the process in which sounds act to construct speech, the writing of music became a highly developed abstract system that was brought to an end by Cage's invention of the prepared piano (the strings of the piano full of nails and metal objects). Suddenly a note on a page represented not a tone but the action of pressing down a key, with an entirely unpredictable result.<sup>2</sup> Yasunao Tone compares a pure musical note, an abstract concept that is nothing but a

point in a coordinate system, to the sounds of the natural world that encloses us, calling the note "a deformed pet animal that we have made over the years".<sup>3</sup> In music, as in human relationships, too much control causes damage.

Again we're listening to unpredictable daily life, and the boundaries have changed. Categories are blurred. Technological and social transformation intersect to the extreme that Cage speaks of non-violent change in art as a lesson, since change doesn't have to happen by killing, but can be done by creating.<sup>4</sup> There is a sense of creative equality between composer, performer and audience, allowing for trust and collaboration. In the midst of this abundance, confidence and extraordinary mix of influences, the score is something to play with again. Matthew Marble asks: "Is the architecture of a concert hall a score?" Adam Overton discovers that all scores, for any kind of music, are a form of body art.

The experimentation with imaging, transcribing and defining our "edges" is complicated, but full of what Carson calls "electrification" or a sense of being truly alive that happens both when falling in love and when "coming to know." The space between us is charged with energy, or even love in the sense of Alex Waterman's *Agape*, an ongoing project exploring the social acts of translation and collective interpretation in musical performance.

Barbara Held and Pilar Subirà  
Curators

<sup>1</sup> Anne Carson, *Eros the Bittersweet*. London: Dalkey Archive Press, 1998, p. 49.

<sup>2</sup> Yasunao Tone, "Cage and Recording", *Leonardo Music Journal*, vol. 13, 2003.

<sup>3</sup> Yasunao Tone, concert programme, 15 September 1961.

<sup>4</sup> Quoted in Richard Kostelanetz, *John Cage. An Anthology*. New York: Da Capo, 1988, p. 263.

We wish to express our heartfelt thanks to Matthew Marble & Seth Nehil, Alex Waterman, Roland Groenenboom, Carmen Pardo, Yasunao Tone (for being inspiration and touchstone), Didi Mohanambal (for everything), Ferran Cuadras, Esther Ferrer, Noèlia Mo & Maite Muñoz; to all of our musician friends, for sharing their work and intelligence, as well as to the MACBA Study Centre and Ràdio Web MACBA for creating new alternative spaces for the artists' work.

## Trio 1 from Trios WHITE ON WHITE, 1963

(Realized by Alex Waterman and Will Holder, printed by Will Holder, 2007).

Robert Ashley's graphic scores of the 60's and early 70's continue to open up essential questions about the act of composing and where it is situated inside a social experiment and musical experience. At the very center of his work is not only the proposal to radically change iconographies and semiotics of musical notation, but to change how we read them. The performance is focused on the act of collective reading as the trio gathers around the almost invisible page.

Printed by Will Holder, this performance completes a period of two years of work for Holder and Waterman. Robert Ashley, in the original score asks us to "imagine that it is printed in the following manner..." Detailed instructions on the types of ink and paper and printing methods follow this statement. They were left uncompleted for over 40 years. The surface of the realized score comes in and out of view, creating a choreographed reading that becomes part of the act of performance. The three matrices of three different printed white numbers on an off-white page are superimposed creating the visual melting-into-one-another of signs. The sound world has a similar feel of almost evanescent sounds that meet for a moment and then disappear.

[www.robertashley.org](http://www.robertashley.org) · [www.lovely.com/bios/ashley.html](http://www.lovely.com/bios/ashley.html)

## Clear Music, 1981 · Flight, 1981

*Clear Music* is a transparent score of 13 clear plastic envelope/pages containing clear plastic objects of different shapes that move freely in relation to the lines of the staff. *Flight* is a video-score about movement, rhythm and patterns from a flight of pigeons on a roof in Little Italy, New York. The three variations are electronic transformations of the original score.

[www.eugenibalcells.com](http://www.eugenibalcells.com)

## Concerts for City Bells, 1975-2002

Llorenç Barber's detailed and beautiful minimalist scores from "Concerts for City Bells" are the graphical expression of these large-scale symphonies in which bells from different cities ring according to the author's precisely-timed instructions and the orographic and acoustic particularities of each space. Inspired by different musical traditions, such as marches from Renaissance royal courts, the *cori spezzati* of the Venetian Baroque and 20th-century ideas on the spatial distribution of orchestras and instrumental groups, Barber has created what he himself has entitled "Plurifocal Music" in order to break the passivity of the public, so that they may enjoy a different listening experience by moving from place to place throughout the event.

[www.campana.barber.net](http://www.campana.barber.net)

## Long Throw (Beginning), 2007

Performed with a prepared Piano and guitar, *Long Throw, Beginning* was commissioned by the Cunningham Dance Company as a music piece to be paired with the dance *eyeSpace*, completed by Merce Cunningham in 2007. The piece includes references to John Cage's 1947 piano piece, *Music for Marcel Duchamp*, and reflects the six-decade time span from 1947 to 2007, the long history of the Company, by combining a piano part, with preparations similar to those used by Cage in his *Duchamp* piece, with 21st-century music software and sound-sensing technology. *Long Throw, Beginning* was made with performance roles for the core musicians of the Cunningham Company in mind: Christian Wolff, Takehisa Kosugi, John King and Stephan Moore. The actual score is the interactive software, designed by the composer.

[www.lovely.com/bios/behрман.html](http://www.lovely.com/bios/behрман.html)

## Was der Wind zum Klingen bringt, 1990

This installation transforms air pressure into sound according to certain rules, patterns or chance operations. 48 vacuum cleaners are controlled by a computer which switches them on and off following a self-generating score based on the principle of “cellular automata” (normally displayed on the computer’s monitor, this is a printout of part of a performance). An apparently unpredictable sequence of timbres, harmonies and dynamics are combined to create the illusion of a living object. This piece is usually shown on a computer screen, but in this show a printed score is exhibited.

How to read the score: Each vacuum cleaner (cell) can take on the states “on” or “off”. Different evaluation rules are applied to one or more of the four sound groups, leading to different patterns. A look at the score gives at least an impression of its characteristics. Besides the “cellular automata” movements we used “blocks” and “diagonals”. The main timing rule that has been superimposed over these structures is: The more vacuums are on in a generation (chord), the shorter it lasts. This principle can be scaled. The score consists of six captures taken from the monitor screen during a live performance, pasted together vertically. Time runs along the vertical axis, while the horizontal axis is divided into 48 blocks, representing the vacuum cleaners.

[www.boschsimons.com](http://www.boschsimons.com)

New Methods for Circular Breathing, no. 3  
Player Piano & Piano Player, 2001-2006

«The audience observes a pianist working on a mysterious problem. With a little good luck and a little bad luck, some “music” will be left at the end. The origins of the problem lie with the piano, the music that is never really finished, and the ego that is.» Jens Brand.

[www.jensbrand.com](http://www.jensbrand.com) · [www.g-turns.com](http://www.g-turns.com)

New methods for circular breathing, no. 3  
player piano & piano player

Piece for player piano, piano player and a piece for solo piano by another composer, to be chosen by the pianist.

## INSTRUCTIONS

The musician chooses an arbitrary work  
of an arbitrary length  
by an arbitrary composer  
for solo piano

*(I suggest choosing a piece that's not too fast, that the musician can easily play with highest perfection. To choose a piece that is per se impossible to perform seems to make not much sense to me).*

The chosen work will be recorded on the piano by the musician before the performance (**NOT IN PUBLIC**).

On the occasion of the performance, the player piano performs the recorded file. The soloist has the task of playing silently pressing (without attack) and holding the key of the next note before the piano can press it.

Accordingly, a perfect performance would result in silence and interesting performance creates a new piece.

A failed performance will never result from a missed key but from the lack of engagement to avoid it.

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Jens Brand

## La profesora de flauta, 1977

Sleight of hand for musicians, Catalan poet Joan Brossa's "accions musicals" are small theatrical solos drawn from the observation of his musician friends and collaborators in Barcelona's creative art scene of the 60's and 70's.

[www.fundacio-joan-brossa.org](http://www.fundacio-joan-brossa.org)

**The Flute Professor**

A table, a tape recorder and a red ashtray.

From an elongated case that she carries under her arm, the professor takes out a flute. She examines it, begins to play and with indifference returns it to the case, which she leaves on the table. She turns on the tape recorder: the flute music continues. The young woman, standing in the middle of the stage, takes a package of cigarette paper from her pocket and as she listens to the recorded music, removes the papers leaf by leaf. Finally she chooses one and throws the package on the table; takes out a cigarette case and with much precision, rolls a cigarette, which she lights with a lighter. (Acts like a veteran smoker and draws out the operation of licking the glue of the cigarette paper.) Suddenly, from the back of the hall there appears a Harlequin with a cigar in his hand; he asks the young woman for a light and runs away blowing puffs of smoke. The woman smokes; she adjusts the volume of the sound and listens. Pause. Suddenly she turns off the machine, puts out her cigarette in the ashtray; she picks up the flute case and leaves the same way she came, a bit more agitated.

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Joan Brossa, *Carnival* 1977

*Premiered at the Miro Foundation in Barcelona on June 20, 1977,  
by the Conjunt Instrumental Català. Flutist: Barbara Held*

## 4' 33", 1952 · Six, 1991

4' 33", John Cage's famous silence piece, in which the performer plays nothing, has been called an empty frame, redefining silence as the absence of intentional sound, similar to Rauschenberg's white paintings that can be seen in any light and with any shadows.

Cage wrote *Six* (1991) for six percussionists with unspecified instruments, only the timing of each performer's intervention is carefully notated. It was written for percussionist William Winant.

**«...Sounds occur whether intended or not, one turns in the direction of those he does not intend. This turning is psychological and seems at first to be a giving up of everything that belongs to humanity – for a musician, the giving up of music. This psychological turning leads to the world of nature, where, gradually or suddenly, one sees that humanity and nature, not separate, are in this world together; that nothing was lost when everything was given away. In fact, everything is gained. In musical terms any sounds may occur in any combination and in any continuity.»**

John Cage, *Silence*. Hanover: Wesleyan University, 1973, p. 8.

## Treatise, 1967

Cardew, according to Michael Nyman, "conceived of notation not as an end in itself or a means of unlocking sounds, but as a way of engaging the most valuable resource of any music – people." *Treatise* is a totally graphic score of 193 pages with only occasional references to musical symbols; it is best interpreted by someone with a visual education who can let go of the restrictions of a musical training. Cardew's experiments with notation were later repudiated as he rejected all ideological and economic services that composers perform for the bourgeoisie.

## Projection I (cello), 1950

Feldman was the first composer of his time to use non-representational graph notation, that is indeterminate with respect to its performance. He worked like a painter with the weights, colors and pacing of sound. In this *Projection* series the aim was not to compose but to project sounds into time, with the performer creating an experience within the limits of the notation.

«...My compositions are not *compositions* at all. One might call them time canvases in which I more or less prime the canvas with an overall hue of music. I have learned that the more one composes or constructs, the more one prevents Time Undisturbed from becoming the controlling metaphor of the music.»

Morton Feldman quoted in Michael Nyman, *Experimental Music: Cage and Beyond*. Cambridge: Cambridge University, 1999, p. 7.

## Richard Gareth &amp; Wolfgang von Stürmer 11

## Light Field II, 2008

The collaboration between Wolfgang von Stürmer, sound organizer and software engineer, composer and designer of computer controlled interactive systems, and Richard Gareth, sound artist, video artist and painter, always follows the same working method. The two artists repeatedly explore an idea, starting from the same point, but creating a different piece each time. *Light Fields II* is the second in a series of collaborative works with digital sound and digital video, based on decisions that draw on the structure of *Light Field I*.

[www.richardgaret.com](http://www.richardgaret.com) - [www.myspace.com/thesoundofwvsiwvs.am](http://www.myspace.com/thesoundofwvsiwvs.am)

## Outro Variations Remix + kokorogatsuyoi

14' 33" = cut in [-----] cut out

## Light Field II

Video: Richard Gareth

Audio: Wolfgang von Stürmer (WvS)

Medium: Digital video

Year: 2008

Presentation: (DVD player, monitor, earphones)

The piece has premeditated rules of action and a scored-descriptive-formula that triggers the function of the piece indicating that the work alone is everything--the score, performance, instrument, and medium in itself. The DVD incarnation of the piece embodies it being score/performance/instrument/medium at the same time. It can only exist within the constraints and context of the DVD entity though which it constructs a score of the emergence of a common, subconsciously communicated artistic vision of the collaborating artists. Tracking on this audio-visual score the listener/viewer can arrive and equally comprehend the mental, sensual and artistic space in which the piece exists.

Premeditated rules of action:

1 - Agree on a time length.

Choice made: 14' 33".

2 - Agree how to begin the piece.

Choice made: aggressive/fast jump into the piece.

3 - Agree how to end the piece.

Choice made: abrupt cut out.

4 - Agree on development during the time period.

Choice made: let the piece score itself through an organic, evolving processes.

(A newer interpretation of 14' 33" would indicate a new score/piece).

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Richard Gareth & Wolfgang von Stürmer

## Taking Soundings: Anchor, Blue Map, Red Chart, 2006-2007

Harris' images exist on the edge between a score and a map, line and sound, an event and a recording. Produced from satellite data collected by GPS of travels at sea and along coastlines, the work is "taking soundings" of position and movement. These images are the result of re-drawing those traces during a performance; as each part of the line is digitally drawn the data is transformed simultaneously into electronic sounds. The score then is being re-created, re-drawn, and so re-interpreted at the moment the sound comes into existence. These static prints become a record of a personal map, the memory of a shared performance, and encourage new interpretations by audience and viewer.

[www.yolandeharris.net](http://www.yolandeharris.net) - [sunrunsun.nimk.nl](http://sunrunsun.nimk.nl)

## Soundtracks, 2007

Brenda Hutchinson created this drawing system to make it possible for a friend suffering from an almost total loss of memory because of a serious illness to continue making art. Guided by a sound grid, the person drawing is paying attention only to the present moment, concentration is focused on the tip of the pen as it moves across the page, searching and initiating sound as it explores the surface and dimensions of the page through time. The recording, drawn on a computer tablet, is stored for reproduction in a way similar to recorded player piano rolls, producing an artefact that is directly related to an actual re-performance, and not merely a replaying through a recorded medium.

[www.sonicportraits.org](http://www.sonicportraits.org)

## Roma dos pianos, 1980

«**Time: 8 minutes each one divided into 3 parts of 20 seconds or either 4 parts of 15 seconds, just selecting one of these temporary possibilities or combining them freely. Sounds: 2 chromatic scales of 88 sounds – chromatic total of the piano keyboard – one of them ascending – from low to high-pitched – and the other descending – from high to low – that shall be played by joint grades, legato or non legato and with any type of dynamics just bearing in mind that only 11 of these sounds will correspond to each minute.**»

Juan Hidalgo, score directions.

[www.juanhidalgo.com](http://www.juanhidalgo.com)

## Sums, 1989

Taking three at a time the numbers 1-7, the combination 1-2-3 has a sum of 6, the combination 5-6-7 has a sum of 18, and 33 other combinations fall in between. Aligning these accordingly, and connecting them when there is only one small difference, this formation emerges.

«**One could of course listen to the result as a system of three-note chords, but I had already done something similar in two musical scores, *Trio and Hexagons*, so I decided to leave this curious system in purely visual form: completely symmetrical and a bit chaotic at the same time.**»

Tom Johnson.

[www.editions75.com](http://www.editions75.com)



+-, 1987

«A performance of “+” proceeds arbitrarily according to +, -, I, for instance, raise a hand, raise a tone, increase the volume or turn a switch on at +. Bend forward, lower a tone, decrease the volume or turn a switch off at -. Conduct actions of either + or -, or combine + and - actions at I.»

Takehisa Kosugi, directions accompanying the score.

[www.lovely.com/bios/kosugi.html](http://www.lovely.com/bios/kosugi.html)

Jitterbug, 2007

Composer and one of the first generation of sound artists to emerge in the '60's and '70's, Annea Lockwood uses graphic notation, traditional notation and invented symbols to describe new sounds, reveling in the “expansive freedom” it gives the players.

The score for *Jitterbug* requests players to invent sounds to transcribe the details of images of stones, taken from the same spot in the Flathead River in Montana as the hydrophone recordings of underwater insects that are also part of the performance material of this piece, commissioned by the Merce Cunningham Dance Company.

[www.lovely.com/bios/lockwood.html](http://www.lovely.com/bios/lockwood.html) · [www.otherminds.org/shtml/Lockwood.shtml](http://www.otherminds.org/shtml/Lockwood.shtml)

Quasimodo, The Great Lover, 1970

This visionary text score explores the possibilities and limitations of transmission, asking performers to send sounds over long distances, through air, water, ice metal, stone or any other sound-carrying medium, using the sounds to capture and carry to listeners far away the acoustic characteristics of the environments through which they travel. Lucier's music is based on the exploration of acoustic phenomena and the perception of sound, but this piece is about transmission itself, and demonstrates his special interest in bioacoustics and the physics of sound.

Self-Portrait for Flute and Anemometer, 1979-1990

*Self-Portrait* is one of three works that explore the directivity of sound waves from musical instruments. In *Self-Portrait*, a flutist stands several feet from a wind anemometer. A light is beamed through it, from the opposite side. As the flutist plays long tones toward the anemometer, streams of air from the lip of the flute cause its blades to spin at various speeds, hiding and revealing parts of her body.

[alucier.web.wesleyan.edu](http://alucier.web.wesleyan.edu) · [www.lovely.com/artists/a-lucier.html](http://www.lovely.com/artists/a-lucier.html)

### Self-Portrait for Flute and Wind Anemometer

A wind anemometer is mounted on a stand facing a flutist standing several feet away. As the flutist plays tones of various kinds the blades of the anemometer spin at speeds determined by the direction and intensity of airflow from the embouchure of the flute. A light illuminates the anemometer in such a way that the shadows produced by the spinning blades hide and reveal parts of the player's body.

*Self-Portrait* was written for Barbara Held and was first performed by her at Roulette in New York on October 27, 1989.

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Alvin Lucier

### Crystals, Plants, Villages: Musical Intuition and Visual Form, 2008

Looking through the fields of crystallography, botany, and environmental design, the musical score is intuitively approached by way of the eye as well as the ear and in space as well as time. Composer-performer-researcher Matt Marble (Mississippi, USA, 1979) offers a series of short text-images on the above topics, as well as original drawings and notes, full scores for many of his own works, and his recent publication, *Tools of Mind*, an anthology of musical scores and creative design.

virb.com/mattmarble · foarm.artdocuments.org

### Antibarbarus, 1998 De musicorum infelicitata, 2002

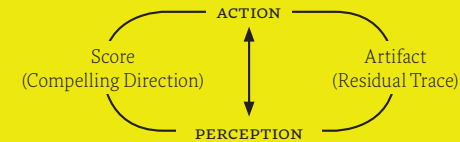
**«I sometimes think of music as a succession of sounds which on reaching the listener's ear turns back on itself and retraces its path, in orderly disorder, until re-entering the mind of the person who thought it up. A music like dust in the listener's eyes. A music where listening to it is like pressing your nose against it.»**

Walter Marchetti, *De musicorum infelicitate*. Milan: Alga Marghen, 2002, n/p.

### Crystals, Plants, Villages Musical Translations of Visual Form

#### INTRODUCTION

Whether in a diamond, a tulip, or a pygmy village, we are continuously awed by & admiring of the diversity of forms, which fills this world & renders it meaningful to us. I only wish to extend this experience of form to an increasingly broader interlinking of perception & action, invoking the reversibility of forms inherent in this (re)creative cycle:



A score, a design, a blueprint, a set of directions, a series of rules. These are all traces of an intelligence capable of being read (whether an organization of text, image, audio, etc); at the same time, via translation, they may be read as actions to be performed. They may be written by an individual (e.g. a musical score, a grocery list) or by a group (e.g. a termite dwelling, [www.google.com](http://www.google.com)).

A stone, a flower, a human being, a school of fish. These too are all readable as traces of intelligence or as scores to be realized, through translation. Just as our ears translate the vibrations of air molecules into the mechanical vibrations of bone & fluid on to electrochemical reactions in the brain & full-bodied dancing.

In what follows I offer 3 perspectives of visual form via crystallography, botany, & village design. These perspectives, which have inspired my own musical works, are followed by pre-compositional drawings & notes, as well as 4 of my musical scores. Let them sit together before you, reflecting, the mutual evocativeness of the images striking the imagination of your ears.

To the endless effort of making sense.

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Matthew Marble

PK Peter Kotik, 1980  
SLS Susan Stenger, 1980

Niblock's early pieces were composed by first choosing and noting down a series of microtonal intervals, and then recording them one note at a time. The instrumental notes were then mixed to 16 tracks, editing out the attacks and spaces, joining them into continuous lines and blocks of overlapping frequencies that build up and create beating and vibrating textures of sound.

Niblock's works exist as recorded pieces, but are eminently for performance, where they are played at loud volume, often with live performers moving about the space, joining the mix of frequencies in close proximity to audience members. *For Four Full Flutes* was originally planned as a 2-LP set, in order that listeners could become interpreters, unmasking alternative pieces by playing both records simultaneously.

[www.phillniblock.com](http://www.phillniblock.com)

Worldwide Tuning Meditation, 2007  
Six for New Time, 1999

Pauline Oliveros *Worldwide Tuning Meditation* is the latest realization of her use of the awareness of sound as a meditation for the interconnection between people. This is an interactive piece intended to be played with the audience acting as a musical instrument that uses the www as a global performance space. It was presented in a live worldwide audio transmission by Free103point9 radio in August, 2007.

*Six for New Time* was commissioned by William Winant and Sonic Youth. It is a graphic score for guitars and percussion indicating basic elements of collaborative music making: pulse and counter pulse, timbre/chord, gestures and listening.

[www.deeplisting.org/pauline](http://www.deeplisting.org/pauline)

**The World Wide Tuning Meditation**

Begin by taking a deep breath and letting it all the way out with air sound.

Listen with your mind's ear for a tone.

On the next breath using any vowel sound, sing the tone that you have silently perceived on one comfortable breath.

Listen to the whole field of sound the group is making. Select a voice distant from you and tune as exactly as possible to the tone you are hearing from that voice.

Listen again to the whole field of sound the group is making. Contribute by singing a new tone that no one else is singing.

Continue by listening then singing a tone of your own or tuning to the tone of another voice alternately.

Commentary:

Always keep the same tone for any single breath. Change to a new tone on another breath.

Listen for distant partners for tuning.

Sound your new tone so that it may be heard distantly.

Communicate with as many difference voices as possible.

Sing warmly!

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Pauline Oliveros

## Voice Piece for Soprano, 1961

Yoko Ono has compared her own process of making art to writing a musical score for others to perform. Her work often involves *haiku*-like scores that combine imagery, actions and sound through the imagination, into poetry. An open-ended process is set in motion.

**Voice Piece for Soprano**

Scream.

1. Against the wind.
2. Against the wall.
3. Against the sky.

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Yoko Ono

## Duet for Tashi Wada, 2008

The primary material used by Adam Overton is intimacy and interaction, exploring the space between people. A piece can be written for violin or for cello, but a dramatic change happens when it is written for “violinist” or for “cellist”. For Overton any music, current or past, can be considered a form of body art.

plus1plus1plus.org

**Duet for Tashi Wada**

...

*for two violinists*

*or a pair of any other instrumentalists or vocalists*

*especially (though not limited to) those with a large, continuous range trustingly, intuitively, not at all logically*

...

Stand back to back, perhaps touching, eyes closed

Player One - somewhat randomly/intuitively choose a tone on your instrument you would like to play

Picture it in your mind, but don't play it yet

Player Two - try with all your psychic might to sense what Player One wants to play

Prepare to play your predicted tone, and when ready, sound it

Player One - when Player Two begins to sound their prediction, begin immediately to sound yours

Hold the two tones for around 10 seconds...

If Player Two is correct, and the two tones are the same (or very very close), the piece may end...

(Or you may continue...)

If Player Two has not sensed the correct tone, the piece shall continue with the performers alternating as

Player One and Player Two

The piece might last until someone has sensed the other's tone correctly,

or until the two players desire to stop (either stopping intuitively, or at a predetermined time)

...

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Adam Overton

## Madonna Generation Score for Lemur GitarBot, 2004 Kitchen Score, 1991

«In 2004 I was invited to show a work made in 1987 entitled *Madonna Generation at Gigantic Art Space* in New York City, as part of a show called Gen-r-8. The piece consisted of 68 photocopies of an image of Madonna from the time (1987), which had been torn out of a magazine. Sonic Youth was in the studio at the time, making the *Sister* album, and the studio had a copy machine which I used to reproduce the magazine page. I placed the copy on the bed and made a copy of that, and continued on in this manner, watching the image gradually degrade in the process, until it was unrecognizable. At *Gigantic* I exhibited the entire collection of images:



Also included in the same show was a group from Brooklyn called LEMUR (League of Electronic Musical Urban Robots), led by a fellow called Eric Singer. The group constructed various computer-controlled robot-like machines, which made various musical sounds. One such machine was called the 'Guitar Bot'. It consisted of a slab of metal mounted with 4 guitar strings, each of which could be individually plucked, strummed, and fretted by computer control. Eric asked me if I would compose a piece for this Bot, for the opening of the show.

I immediately decided to somehow tie this musical work to my *Madonna Generation* in the show, and came up with the notion to utilize the same original image of Madonna as a basis for my score. It was possible to manipulate each string on the Bot by 2 parameters: pitch and "pick velocity" (how fast or slow the string would be strummed). I decided to "explode" the drawing of Madonna's face by tracing sections of it onto new sheets, and utilize the resultant images to control these parameters, with lines higher up in the drawing correlated to higher pitches and with darker, denser sections of the image indicating more furious strumming of the string. For example, the horizontal lines which delineated the cross she wore in her ear produced a steady pitch which jumped up about an octave and then back down again, while the curves of her lips were translated musically into gradual rising and falling pitches.

These computer controlled instruments were in their early stages at the time, and it took some "persuading" to convince the thing to play my piece, but eventually it did, and we were able to make a very basic recording of the work. On the night of the opening the Guitar Bot performed beautifully, and I played along with it, adding the 6 strings of my own guitar to its 4.»

Lee Ranaldo, introduction to the score.

[www.leeranaldo.net](http://www.leeranaldo.net)

## Silence Dress, 2007

The *Silence Dress* is made of sonic fabric, an audible textile woven from cassette tape recorded with sound collages, that can also be played like a score. The silence patch is plain fabric with no sound. The pattern of the sonic fabric is encoded with sound-to-light correspondences, or in other words, the measurement of sound waves in Hertz of musical notation is translated into the size of the light waves of color, measured in angstroms.

[www.alycesantoro.com](http://www.alycesantoro.com) · [www.youtube.com/user/alycsobvious](http://www.youtube.com/user/alycsobvious)  
[www.improbableprojects.com](http://www.improbableprojects.com) · [www.sonicfabric.com/index.html](http://www.sonicfabric.com/index.html)

**How to read sonic fabric**

1. Build a sonic fabric reader from a recycled cassette player.
2. Grab your piece of sonic fabric and your new apparatus
3. Plug in your headphones  
(or go directly to an amp)
4. Press the play button  
(make sure the volume is all the way up!)
5. Put on your headphones...
- 6 Then rub the head along the surface of the sonic fabric,  
keeping it level and making good contact

Each strand has been prerecorded with a multi-track collage of sounds.

The head picks up 5 or so strands of tape at a time (which is why it sounds garbled).

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 Alyce Santoro

## Grid, 2007

*Grid* is a generative score, a 5 x 5 matrix that is populated by visual score elements chosen according to random parameters. A single score is played by the group of musicians. A particular configuration is visible to the performers for a given time period, then disappears. From 2 to 17 elements may appear, and performers choose which to play and, if they choose to play more than one, in which order. Repeating elements is OK, as is varying the repetitions.

[www.michaeljschumacher.com](http://www.michaeljschumacher.com)

## Score for Live Video Performance, ca. 1989

**«I recently found this in a box full of my early films. It was among other scores or play lists, only it looked different than the others. It is not dated but I am guessing it is from 1989 when I first moved to New York from Montreal and was using slide projectors and film loops in performances with musicians. Working with musicians I became aware of “scoring” or notating a sequence that you could use to organize your ideas. I make a new score every time I have a show, because I change or tweak the sequence each time.»**

Leah Singer, introduction to the score.

[www.skor.nl/PanoramicPortraits/Leah/site.html](http://www.skor.nl/PanoramicPortraits/Leah/site.html)

## Of Music and Language, 2006

Smit's "textworks" deal with revealing and hiding. Imagery explores and exposes language in its printed form, consisting of simple manual repetitive interventions in already existing printed matter, which varies from newspaper and magazine articles to whole books. Some interventions are more formal and some are more content-based, though in general they are both; exploring the hidden structures and meanings in each text. They are meditations on language, obsession, music, power, play, design, structure and beauty.

The English Dancing Master Leads:  
or, Mr. Bailey's Maggot, 2006

(Tanja Smit and Christopher Williams)

**«Inspired by and dedicated to the notorious improvising guitarist Derek Bailey, who died on Christmas, 2005, the piece is based on a British country dance manual published in 1651. Two dances/tunes from the original edition, *Irish Trot* and *Faine I Would*, provide the main ingredients from which the piece is derived. Their fiddle tunes, instructional texts, and page layouts were analyzed and mapped onto each other in different ways according to form and content; then parting from these interventions new "steps" emerged for further individual and collaborative exploration. Bailey's music worked from these same needs, bypassing aesthetic or ideological platforms. Consequently, his door was always open to new listeners, collaborators, and meanings. Our aspiration to this continually transformative invitation constitutes the "maggot", or musical idea, of the piece.»**

Tanja Smit and Christopher Williams

[www.tanjasmit.com](http://www.tanjasmit.com)

## Yubi-tomyo [Finger Light] for piano, 1995

Yûji Takahashi's piano piece uses the symbol of light as observing in the light of mindfulness the ever-changing flow of sound by being conscious of every minute movement of hands and fingers. In this kind of notation, as in all tablature, especially in the ancient forms of notation for Japanese or Tibetan Buddhist chant, the contour of hand movements is notated, but not rhythm or pitch.

[www.suigyû.com/yuji/](http://www.suigyû.com/yuji/)

## Postal Pieces (1965-1971), 1984

From the series of postal pieces, written between 1965 and 1971, 10 short works printed on postcards. Tenney's explanation of the set is that he hated to write letters, and since he had a number of very short compositions, what could be easier than to make postcards out of them? Most of the pieces deal with one of three fundamental ideas: intonation, the swell idea, the unadorned use of musical structures that will produce meditative perceptual states. They are sometimes referred to as *koans*.

[www.jensbrand.com](http://www.jensbrand.com) · [www.g-turns.com](http://www.g-turns.com)

## The Origin of Geometry: An Introduction, 2006 Trio for a Flute Player, 1990

Yasunao Tone's usual method for generating sound has been the electronic conversion of text, replacing it completely so that no trace of the text remains. However, in *Origin of Geometry* the text speaks itself. The performer generates sound from a notation made of the combination of three different geometrical shapes on acetate (circles, squares, triangles) overlays to the piano stave and a structural graph – a kind of Lacanian matheme – indicates the choice of silence/sound.

*Trio for a Flute Player* (1990) uses three sound components, sound from the flute itself, the flutist's voice and electronic sounds, all to be performed by the solo flutist. These components are based on a single source, poems from the 8th Century Japanese anthology, the *Manyoshu*. [www.lovely.com/bios/tone.html](http://www.lovely.com/bios/tone.html)

## Burdocks, 1971

*Burdocks* is for one or more groupings of players. It's a collection (from which one can choose what to play) of different, distinctive, compositional ideas in ten parts, including notations on staves; notations indicating only durations, often depending on the other sounds a player hears; and various verbal directions both explicit and suggestive. Various numbers of performers (no upward limit) can play, using any means of making sounds. Any number of the ten parts can be played simultaneously or overlapped.

**«I had an image in my mind (before having heard them) of the Scratch Orchestra, a varied community of musicians (classical, folk, experimental, jazz, et cetera), professional and amateur musicians along with non-musicians, joined in a populist-anarchist spirit more or less guided by Cornelius Cardew with Howard Skempton and Michael Parsons. I had also been affected by hearing a recording of Ba-Benzele Pygmy music, quasi-improvised, polyphonically, by a whole community.»**

Christian Wolff.

## Activities related to the exhibition

### Wednesday, 18 June, 7.30 pm

**Radio Action III**, Online performance. To launch the transmission of the RWM programme Lines of sight #4: Radio Action III, the American artist collective free103point9 presents a performance by Tianna Kennedy and other special guests, (re)transmitted live from New York.

### Thursday, 10 July, 9 pm

**Concert by Pauline Oliveros**, composer, performer and humanitarian whose work is about opening her own and others' sensibilities to the many facets of sound. All of Oliveros' work emphasizes musicianship, attention strategies, and improvisational skills.

### Thursday, 17 July, 9 pm

**Concert by Yasunao Tone**, musician and one of the major figures in the expanding field of avant-garde investigation and provocation. For the past ten years much of his work has centered on extending the possibilities of CDs as a performance medium.

### Wednesday, 1 October Lecture (7.30 pm) and concert (9 pm)

**By Alex Waterman: *Agapé***. in search of the creative process in music, art, poetry and political dialogue in the community and beyond.

### Wednesdays, at 5 pm

Every Wednesday, until the end of the exhibition, one of the programmes from Radio Web MACBA will be retransmitted in the exhibition space. For more information: [www.macba.es](http://www.macba.es).