

# LUFTLINIEN

performers and loudspeakers  
performers

during events  
a space during events

performers and loudspeakers in a space during events that are recorded  
events that are recorded



video installation, color, sound, subtitles

18 min.

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*concept / realization / text / editing*

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Kreidler / Zürcher Hochschule der Künste ZHdK

<sup>[1]</sup> N. Jaar, *Space is only noise if you can see*

<sup>[2]</sup> F. Kittler, *The City is a Medium*

<sup>[3]</sup> M. Augé, *Non-places: Introduction to an Anthropology of Supermodernity*

<sup>[4]</sup> W. Gibson, *Neuromancer*

<sup>[5]</sup> Paul Virilio, *The Art of the Motor*

<sup>[6]</sup> Michel Chion, *Audio-vision: sound on screen*

<sup>[7]</sup> Vilém Flusser, *For a philosophy of photography*

<sup>[8]</sup> Friedrich Kittler, *Gramophone, Film, Typewriter*

<sup>[9]</sup> Marc Augé, *Non-places: Introduction to an Anthropology of Supermodernity*

<sup>[10]</sup> S. Edgerton, *The Renaissance Rediscovery of Linear Perspective*

<sup>[11]</sup> R.T. Tally Jr., *Spatiality*

<sup>[12]</sup> Karl Marx, Friedrich Engels, *Manifesto of the Communist Party*

*Raphaël Belfiore*

Composer and sound/multimedia artist born in Geneva in 1995. Based in Zurich; studied composition, musicology, art history and philosophy in Geneva. Currently studying composition in Zurich and Basel. Projects in various formats: instrumental pieces, with and without electronics, sound and multimedia installations, videos, performances, verbal scores and interventions.

1. PERFORMERS AND LOUDSPEAKERS IN A SPACE
  - 1.1 Five musicians not using their instruments:
    - 1.11 one static, four moving;
      - 1.111 one static, in a central position;
      - 1.112 four moving, distributed around the space.
  - 1.2 A space with three levels and two staircases:
    - 1.21 The two top-levels are connected spatially, the lower one is not.
      - 1.211 The upper floor consists of a long single corridor in the middle.
      - 1.212 The middle floor is divided into two corridors at the edges of the space. There is no separation between this floor and the upper one.
      - 1.213 The lowest floor consists of a central corridor separated from the space of the other two levels. It leads to the place where the result of this text is now shown.
    - 1.22 The two staircases are situated at both extremities of the corridors and are almost identical.
    - 1.23 Seeing or hearing the static performer is not always possible for the moving ones.
  - 1.3 Four small loudspeakers are positioned in the space.
    - 1.31 One is placed on the upper floor, emitting specific frequencies and amplifying the voice of the static performer.
      - 1.311 It is oriented in the same direction as the static performer.
    - 1.32 One is placed in each staircase, emitting a specific frequency, at the level of the middle floor.
    - 1.33 One is placed midway down the corridor on the lower floor, emitting a specific frequency.
    - 1.34 Hearing simultaneously the sound of all loudspeakers is always impossible for the moving performers.

*"Space is only noise if you can see" [1]*

2. PERFORMERS DURING EVENTS
  - 2.1 Three events happen on a single day.
    - 2.11 Each event is a similar version of the reading of this text.
      - 2.111 The reading is done by the static performer in the center.
    - 2.12 Each event is a different version of the documentation of this reading.
      - 2.121 The reading is documented by the four moving performers.
      - 2.122 Two of them operate a video-camera, the two others an audio recording device.
    - 2.13 The reader never changes role while the moving ones can change their recording device type between the events.
  - 2.2 The recording performers devise three different paths.
    - 2.21 The itineraries start each time on a different floor and alternately near and far from the reader from one event to the next.
    - 2.22 Along their path, they are successively stationary and in motion.
      - 2.221 During stationary phases, the recording device's sensor is oriented in the direction of the static performer.
        - 2.2211 The fact that a material element stands between the sensor and the reader is irrelevant.
      - 2.222 During displacements, the handling of the device is up to the performer.

- 2.23 The number of changes between immobility and motion and their speed is decided by the performers.
- 2.24 Any space accessible to the moving performers is the performance space.

*"Plato, as lawmaker for an ideal city, proposed that its size be limited to the range of a voice, which would broadcast laws or commands."* [2]

### 3. A SPACE DURING EVENTS

- 3.1 The performance space is sonified.
  - 3.11 The two loudspeakers in the staircases and the one on the lower floor emit at a relatively low volume continuous sinus waves with unchanging and precise frequencies.
    - 3.111 The frequency is deduced from the relative position of the loudspeaker to one of the extremities of the building.
    - 3.112 The result of each calculation is proportioned logarithmically to the piano frequency range: 0 to 50.72 meters becomes 27,5 to 4186 Hz, that is, a pitch between A0 and C8.
  - 3.12 The position of the loudspeakers remains the same in each occurrence of the event.
- 3.2 The time and the duration of each occurrence are sonified.
  - 3.21 The loudspeaker amplifying the voice of the speaker on the upper floor also plays two continuous sinus waves at a relatively low volume.
    - 3.211 One frequency is stable and the other increases every second.
    - 3.212 The frequencies are deduced from the time of day.
    - 3.213 The unchanging frequency sonifies the start of a reading and the increasing one sonifies the time elapsed.
    - 3.214 The result of each temporal measurement is proportioned linearly to the piano frequency range: 0 to 86'400 seconds, that is, 24 hours becomes a pitch between A0 and C8.
- 3.3 During events, each point in time and space involves a different perceived combination of tones.

*"When an international flight crosses Saudi Arabia, the hostess announces that during the overflight the drinking of alcohol will be forbidden in the aircraft. [...] Returning after an hour or so to the non place of space, escaping from the totalitarian constraints of place, will be just like a return to some thing resembling freedom."* [3]

### 4. EVENTS THAT ARE RECORDED

- 4.1 During the events, audio and video are never recorded by the same device.
- 4.2 The performer does not intentionally create content for the device but influences it in its capture.
  - 4.21 Signs of each performer's presence (appearing in the field of view of a camera, unintentional sounds related to spatial movement for example) are not specifically avoided.
    - 4.211 The same goes for the technical conditions of the event. Recording the filming or filming the recording or any other combination is considered a possibility.
  - 4.22 Documentation is not necessarily transparent or informative.
    - 4.221 The settings of the devices remain stable throughout the event.
- 4.3 The generated material is reduced to the one-channel video work with stereo audio in which this text is embedded.
  - 4.31 During the editing process, the material generated by the three different events is considered as documenting only one.

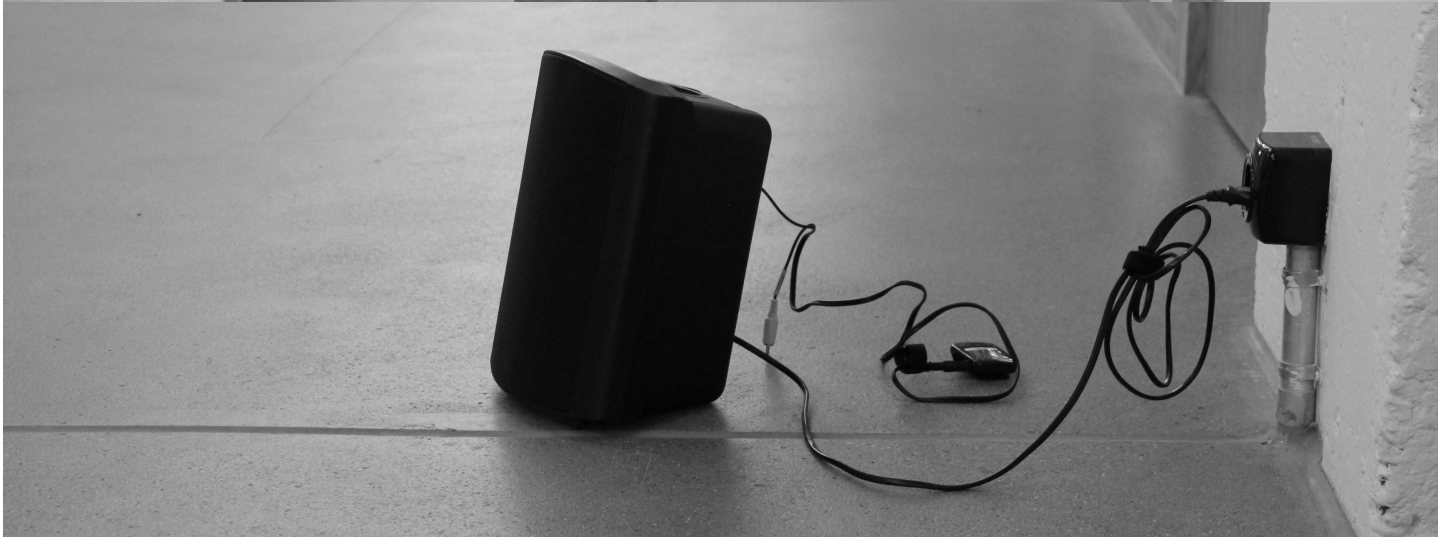
- 4.311 The chronological progression of the sequences is strictly maintained.
- 4.32 The editing principle is that of successive replacement of perspective, common for example to any TV show recorded with several cameras.
- 4.321 However, the audio and video that are presented together always come from the same occurrence of the event.
- 4.3211 A change in the sonic time encoding means a change of video recording time.
- 4.33 No processing is done on the generated material.
- 4.4 The final result is subtitled regardless of whether the speaker is heard and seen or not (but still following the actual course of the reading in the video.)
- 4.5 The result is shown exclusively in the building in which the events were documented.
- 4.51 A (possibly highly accurate) documentation of the projection is however showable elsewhere.

*"Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts... A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding." [4]*

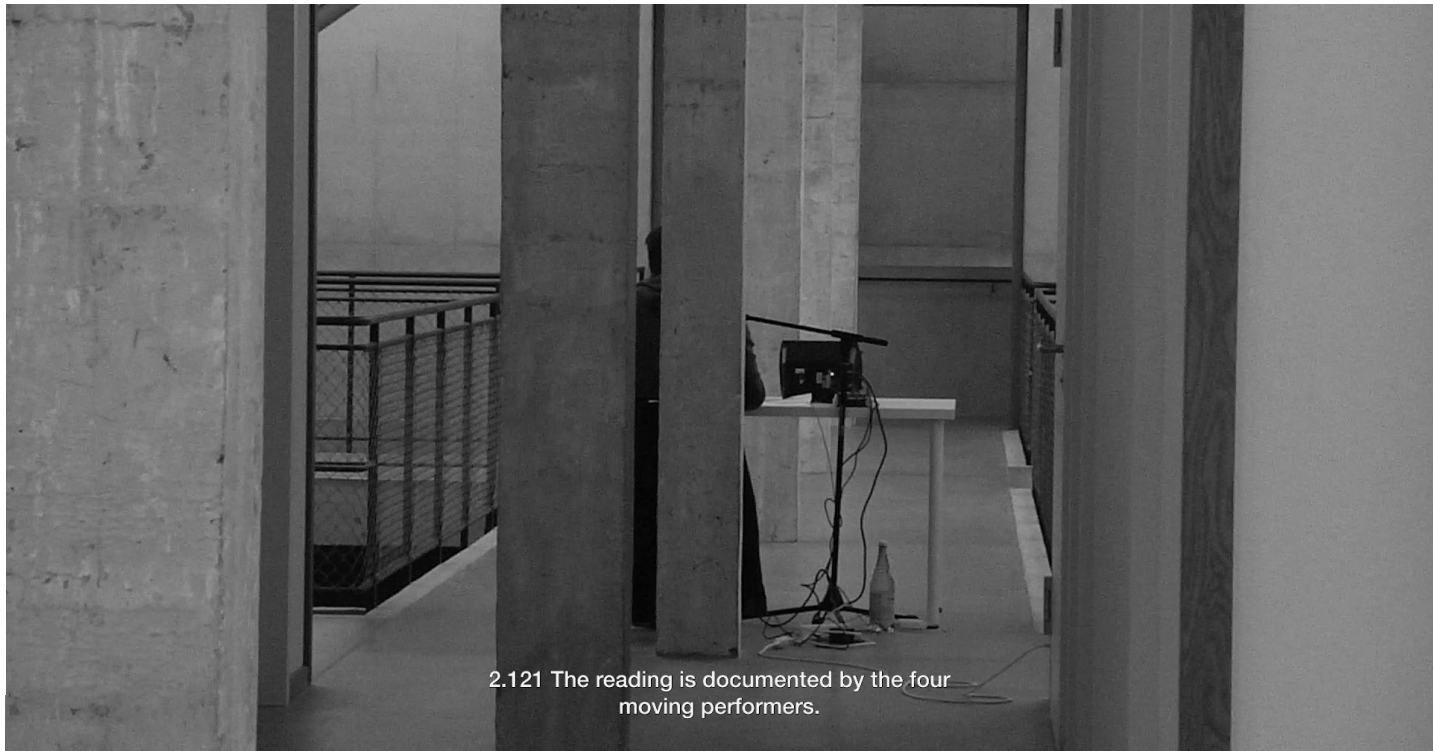
- 5. PERFORMERS AND LOUDSPEAKERS IN A SPACE DURING EVENTS THAT ARE RECORDED
  - 5.1 This work is as self-contained as possible. The text is at once the score, the verbal content, the formal principle and the program notes of the work.
    - 5.11 This work is intended to fall in the field of music-making.
      - 5.111 The instructions are specifically for trained musicians. The work is presented in the context of a music festival.
      - 5.112 The sonic aspect of the work is rooted in one of the historically primordial compositional spaces: the piano range.
      - 5.113 The structure of this text is envisioned as a musical composition, using freely the numerical system of Wittgenstein's *Tractatus Logico-Philosophicus*.
        - 5.1131 The speaking of the numbers allows the sonification of the work's discursive structure and gives it some sort of musicality.
        - 5.1132 The editing of the recorded material also stems from this structure.
      - 5.114 Recordedness as a fundamental mode of musical existence is considered to be a crucial theme in contemporary music-making.
    - 5.12 Self-containment, and conceptualism are used as a way to achieve extreme transparency and transmissibility.
      - 5.121 This work is autocritical in its attempt to delimitate itself.
  - 5.2 This is a musical work in which the retransmission of itself is an integral feature.
    - 5.21 Recording is considered as an act of interpretation. Reading a text about the musicians' actions is a way of emphasizing this fact. The content is not the object of the recording.
    - 5.22 The transmission involved in this work does not offer a unilaterally decided perspective.
      - 5.221 *"At the theater, each of the spectators dispersed in the room necessarily sees a different play. At the cinema, on the other hand, these same spectators, wherever they are placed, will see exactly what the camera has seen, i.e. the same film."* [5]
      - 5.222 Here, not only the points of view are multiplied, but also the points of hearing.

- 5.2221 The relationship between audio and video is taken for what it is: the contingent formation of two parallel technical processes.
- 5.22211 *"I use the phrase audiovisual contract as a reminder that the audiovisual relationship is not natural, but a kind of symbolic contract that the audio-viewer enters into, agreeing to think of sound and image as forming a single entity."* [6].
- 5.2222 At the same time that this work implies a constant discordance between the two, the possibility of their interaction is always present.
- 5.2223 The breaking of the contract is a way to play against apparatuses, understood not only as the hardware, but also as the set of practices it presupposes.
- 5.22231 *"To be free is to play against the devices."* [7]
- 5.3 The title of this work is *Luftlinien*
- 5.31 *Luftlinien*, like *bee line* or *as the crow flies*, *vol d'oiseau*, *linea d'aria*, *vuelo de pájaro*, *hemelsbreed* are all natural metaphors used to designate the shortest distance between two points on a map, without considering material accidents separating them.
- 5.32 Referring first of all to the musicians' action of documenting an event as if nothing could stand between the sensor of their camera and what they are recording, the title also serves to invoke the problematic of the map and the territory present at multiple levels in the work.
- 5.321 The concept and its realization, the recording and the event, the text and the enunciation form pairs of maps and territories.
- 5.322 This text is divided into four "territorial" perspectives and a "cartographic" one.
- 5.323 The sonic component of the work is purely obtained via processes of data mapping.
- 5.3231 Sinus waves, as lines of (vibrating) air, are used in order to make manifest in a single audio information the place of each performer in the sonic map of the site.
- 5.3232 Time and space are translated into information of the same nature. *"Inside the computers themselves everything becomes a number: quantity without image, sound or voice."* [8]
- 5.3233 The arbitrariness fundamental to any mapping allows the compositional choice of linear and logarithmic mappings in parallel.
- 5.33 The work in conjunction with its specific site implies several notions of spatiality at different levels.
- 5.331 From the transportation and storage of local and international goods such as cocoa beans in the early 20th century, its reinforced concrete construction to its rehabilitation as a place for tourism, the site is an example of the changing notion of interior and exterior space in modernity.
- 5.332 The digital technology at the foundation of the work is also a major cause of a further redefinition not only of the notion of space but also of time.
- 5.3321 *"We are in an era characterized by changes of scale [...]: rapid means of transport have brought any capital within a few hours' travel of any other. And in the privacy of our homes, finally, images of all sorts, [...] can give us an instant, sometimes simultaneous vision of an event taking place on the other side of the planet."* [9]
- 5.333 This work's idea of representing a space thanks to virtual lines and a central subject generating meaning is not unlike that of linear perspective: a historical meeting point between ideas of space and media.
- 5.3331 *"It is fair to say that without this conjunction of perspective and printing in the Renaissance, the whole subsequent development of modern science and technology would have been unthinkable"* [10]
- 5.3332 *"Space when ascertained according to linear perspective has three key aspects: (1) space is continuous, isotropic, and homogenous; (2) space is quantifiable; and (3) space is perceived from the point of view of a single, central observer. [...]. Space could now be measured, divided, quantified, bought and sold [...]"* [11]
- 5.3333 The Latin root of the term itself means "to see through".

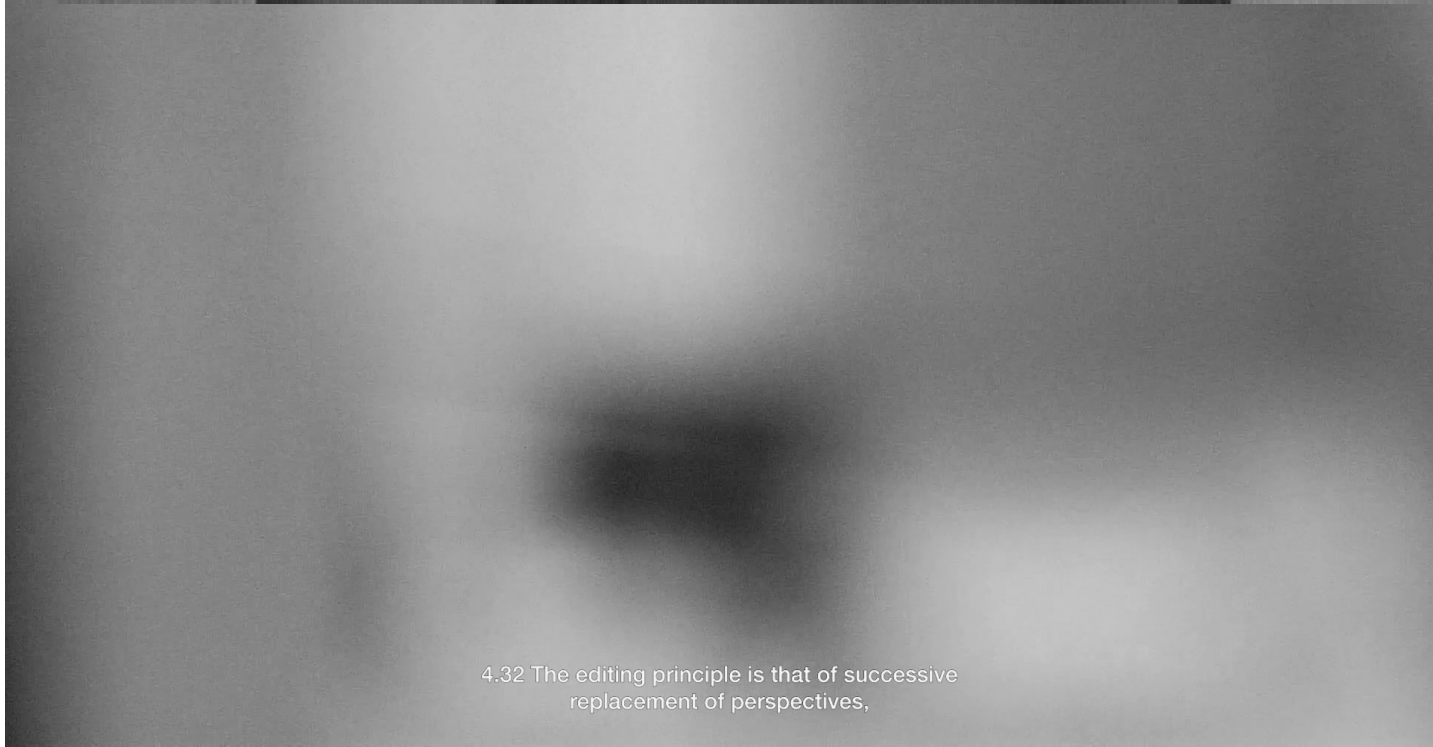
*"All fixed, fast-frozen relations, [...] are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air [...]"* [12]







2.121 The reading is documented by the four moving performers.



4.32 The editing principle is that of successive replacement of perspectives,



5.22231 « To be free is to play against the devices. » [7]