Some Notes on Notation in Sound Installation Art

Carsten Seiffarth

What is Sound Installation Art?

In the more than twenty years I have been active as a curator and producer in the vast field of sound art, my focus on this art form has gradually shifted from understanding it in terms of music to considering it as part of the fine arts. The term "sound art" is mostly used as an overarching term for practices as diverse as radio art, sound poetry, sound performances, experimental music, sound installations and sound sculptures, among others. In contrast, the form of sound art I am interested in is mainly a situation-specific installative art, with sound as one of its most essential materials.

Over the past few decades, sound art has increasingly established itself as a new art form that has emerged on the fringes of music and visual art, blurring the common boundaries of artistic forms of expression such as media art, experimental and electronic music, performance, environmental, kinetic and site-specific installation art. However, what has remained central to the genre is the creation of artistic work with the material of sound in a specific space. Therefore, in my understanding, the term "sound art" mainly refers to sound installations and sound sculptures that can be experienced in a unique physical space which cannot simply be replaced.

Helga de la Motte-Haber offers a definition of sound installation and sound sculpture in *Klangkunst* (Sound Art) – volume twelve of the series of handbooks on twentieth century music –, a definition which applies to the context I will address further on:

> Single sounding objects that offer the viewer a visible material vis-à-vis can be referred to as sound sculptures. Sound sculptures can be hung in different rooms, meaning they are not necessarily dependent on a site. In contrast, the sound installation is site-specific. Sound installations normally form an arrangement or environment that surrounds the recipient, covers him or her with sound, or only connects with the recipient when it is in motion. Material objects do not necessarily need to be present. Technical sound equipment might need to be present for emitting either sound synthesized on the spot or sound recordings via loudspeakers. Hybrids of sound installations and sound sculptures are installations in which numerous sound sculptures or objects

are fit together and installed in one place (De la Motte-Haber 1999, 95; my translation).

Notation in Sound Installation Art

As suggested by its title, my text is based on initial notes regarding aspects of notation within the delineated scope of sound art. Depending on the artistic background of the protagonists – who may come from fields as diverse as fine arts, music, architecture or performance art –, they use mainly musical, graphic and textual notations, and produce them for very different reasons and purposes. Based on my curatorial experience and on the exchange with the artists during their respective processes of installation, I will illustrate these practices by presenting three examples that seem paradigmatic to me, and that are closely related to the artistic backgrounds of the respective sound artists. While for the Austrian sound space artist Bernhard Leitner, who was trained as an architect, the architectural drawing is the logical medium of his notations, the American composer Alvin Lucier writes musical notes on staves with additional text descriptions, and the German visual artist Stefan Roigk understands his installations conceptually as notations in space. As will be seen, all three conceive and use their notations in very different ways.

Example I: Notation as a Medium of Documentation and Instruction

The first example I would like to address concerns the piece "Sound Tube" (1973) by Bernhard Leitner. He uses his notations in this context as a medium of documentation and instruction, which is usually created as a draft drawing at the beginning of realizing a sound art installation and thus forms the first vision of an idea, its technical realization, and as an extended thinking space for the development of the work.

Considering his professional background as an architect, it does not seem surprising that Leitner uses sketches and draft drawings mainly during the first stages of the conception and development of an artwork. The sketch of the idea is followed by the design drawing. There are programming codes for sound control, punch tapes from the early days of computer technology, photographs with drawn-in sound movements and sound sequences for his installations, as well as explanatory three-dimen-

sional notation sculptures, all of which Leitner himself refers to as "notations."

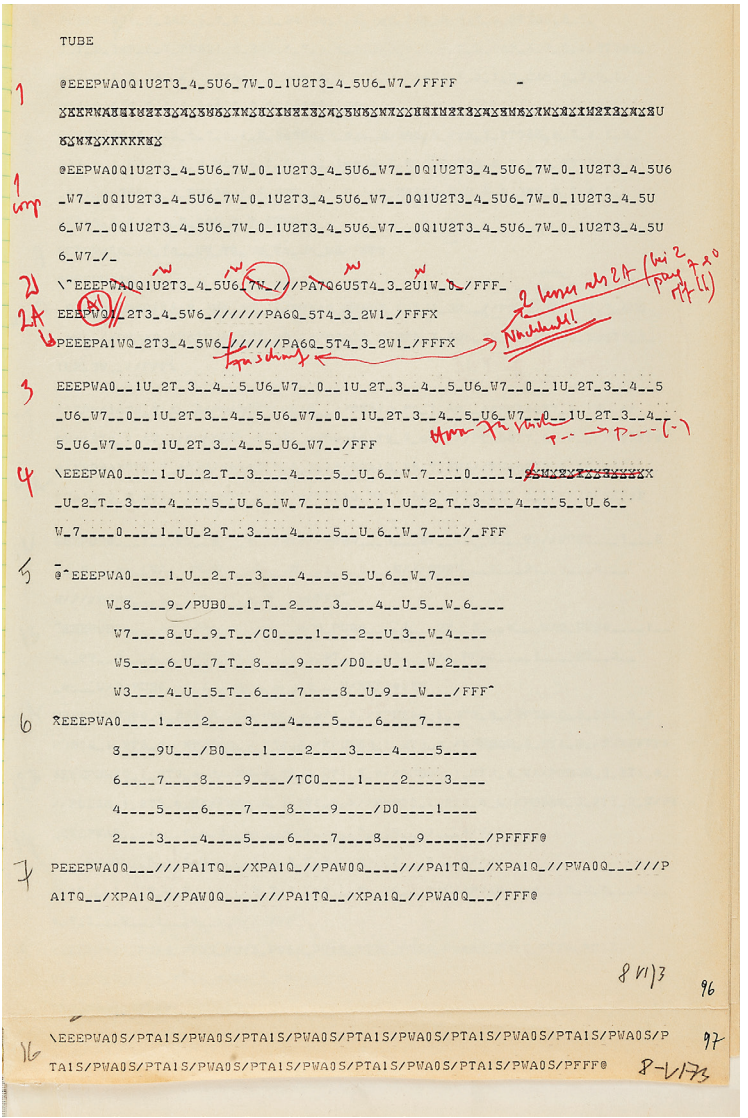

Image 1: Bernhard Leitner "Sound Tube" (1973), one page of the programming code.

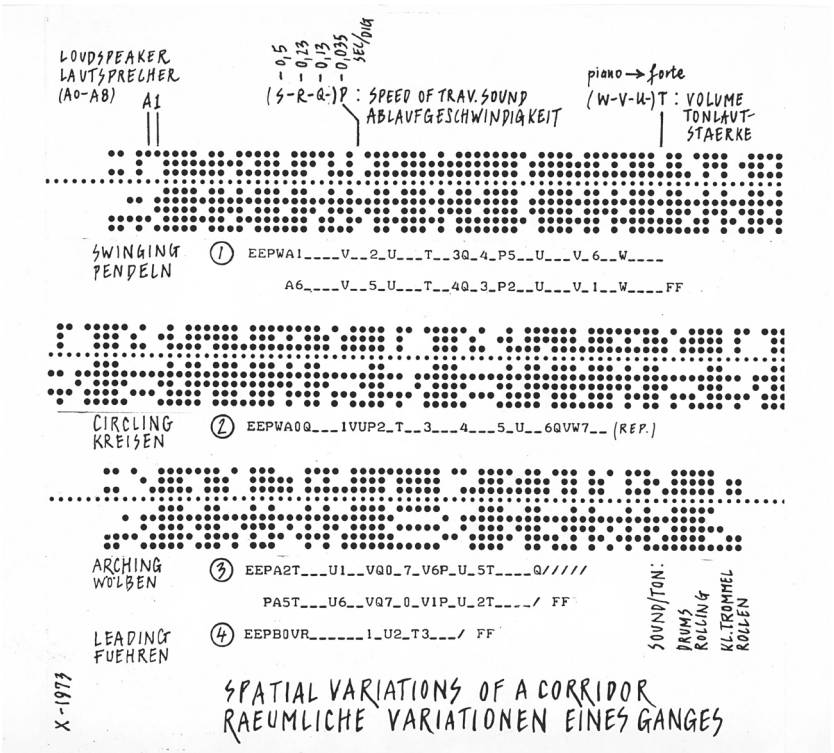

Image 2: Bernhard Leitner "Sound Tube" (1973), punched tape program of the code.

In accordance with the specific creative process of "Sound Tube," we can find among other things the programming code for the sound movements, the exact cues for the individual loudspeakers and the corresponding sound sequences as well as for the individual volume levels (Image 1). In the early 1970's, this programming code was then transferred into a punched tape program (Image 2) and used to operate a control device.

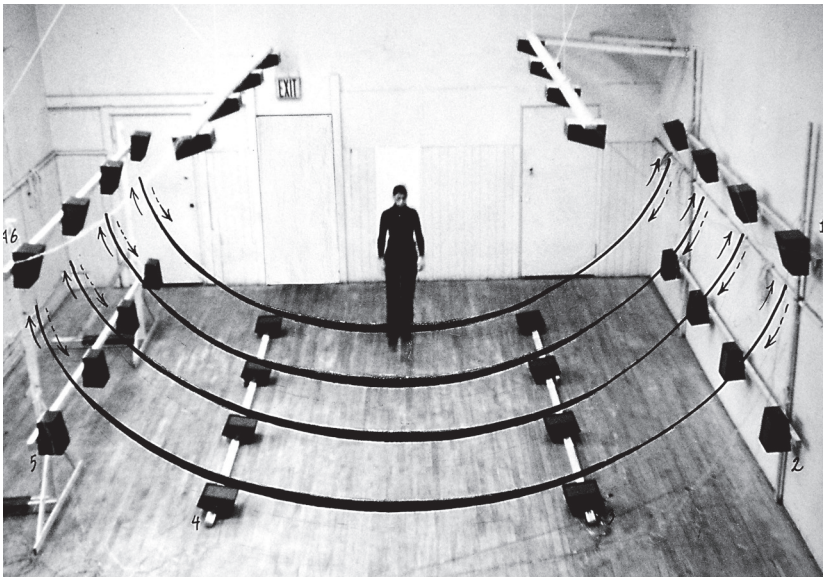

Image 3: Bernhard Leitner "Sound Tube" (1973), photo with drawing, "Swinging Space," notation.

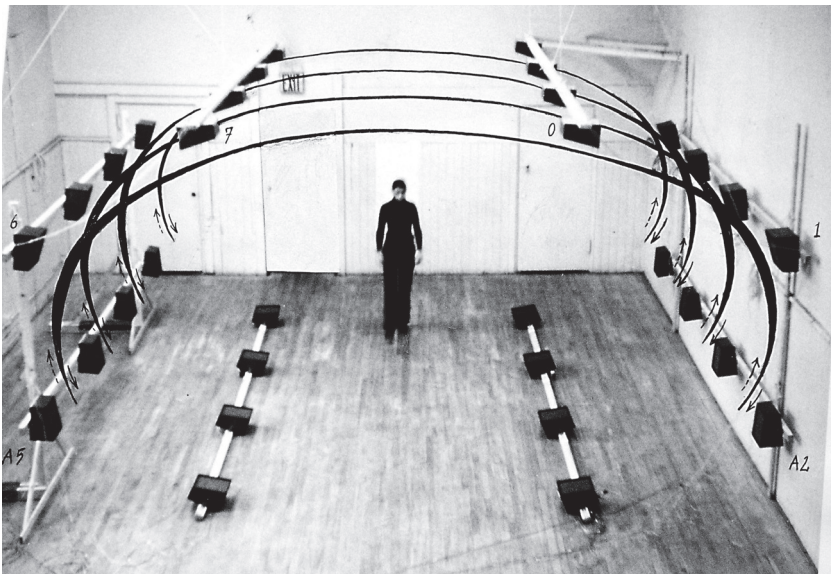

Image 4: Bernhard Leitner "Sound Tube" (1973), photo with drawing, "Arching Space," notation.

On the two photo notations of the installation as realized in New York City, each with four loudspeakers that were mounted on eight wooden slats, Leitner drew sound movements onto the photos, including indications of the different volumes and directions in which the sound was to be projected. By looking at the images one can clearly identify classical crescendo and decrescendo notations, swinging sounds (Image 3) as well as arching sounds (Image 4). This type of notation shows and explains the distribution of sound from speaker to speaker in the installation setting, as well as the different qualities that are to be achieved.

These early notations by Leitner were very important for him to document his "experimental arrangements" in a reflective manner and to develop them further. On the other hand, they served him to transform compositional ideas into technical controls and programming, for example. It was very much later that these study notations were also presented together with the corresponding sound installations in exhibitions. This was not primarily a matter of explaining a sound installation, but of presenting it as artistic and documentary material that illustrates processes and sheds light on the background. And last but not least, these notations by Leitner have an aesthetic value in themselves.

However, the different notations can also be very helpful in the new realization of a work, such as the "Ton-Turm" from 1982, which was destroyed after its presentation at documenta 7. For a solo exhibition in Kortrijk (Belgium), which I curated, this work by Bernhard Leitner was re-realized in 2014 based on his notations, the digitalized soundtrack and some photos from the documenta in Kassel. Besides this individual and visual value, all of Leitner's notations are highly valuable material for sound art research, because they show both the ideas and the realization of these very early sound installations.

Example II: Notation as Spatiotemporal Score and Construction Manual

In the second example, "Empty Vessels" (1997) by composer and sound artist Alvin Lucier, we encounter a type of notation that might be read as a spatiotemporal score or just as an instruction for the realization of a sound installation in a certain space. As a composer who has created several sound installations, Lucier would not specifically consider his drawings, text instructions and inventory or lists of materials as "notations." Despite

this fact, among the preserved documents on this sound installation there are three pages which clearly provide elements that inform us about the organization and reproduction of an artistic work, and which seem very close to what could be found in a musical score. These pages constitute a sort of manual for the set-up as well as a score for the actual realization of his sound installation.

Empty Vessels

Collect up to **8** large and small (green) glass vessels of different sizes and shapes. The vessels should have narrow necks. They should be as simple as possible with no ornamentation or visual designs on them. As functional as possible. Some large, melon shaped.

Place them on pedestals in a row in the installation space.

Insert microphones, mounted on microphone stands with booms, into the mouths of the vessels. (The mikes should be all the same and narrow enough to fit into the mouths of the vessels.)

Route the microphones through long cables to a mixer with amplifiers and **compressor-limiters** to **8** loudspeakers positioned on pedestals (or hidden) on the opposite side of the space.

As the volume levels of the amplifiers are raised to the point of feedback (controlled by the **compressor-limiters**) steady feedback tones are produced. As visitors to the installation enter the room, the strands of feedback are disturbed and the quality of the feedback is altered.

Note: if 8 channels are too difficult for you to handle, the installation may be mounted with fewer vessels.

Image 5: Alvin Lucier "Empty Vessels" (1997), instruction text.

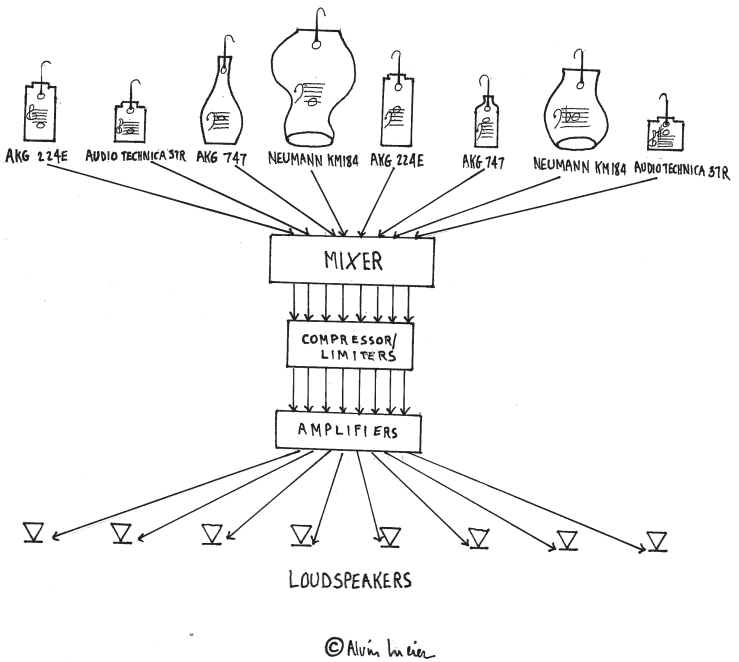

Image 6: Alvin Lucier "Empty Vessels" (1997), drawing.

First, there is a kind of text-based description of the installation (Image 5), something Lucier frequently used for his concept compositions, sound performances and sound installations. Then comes a list of equipment, and finally a drawing (Image 6) of the general spatial structure of the installation, including the corresponding circuit diagram. On the drawing one can appreciate the vessels in their various forms. On each one of them, Lucier indicated the individual resonance tone by using a classical notation system, and under each individual vessel he determined the type of microphone to be used for the installation. Next, underneath these images, he drew the spatially opposite loudspeakers, and in-between the technical sound equipment with its corresponding circuit diagram.

The use of musical notes in the notations of some of his sound installations distinguishes Lucier from many other sound artists. As an academically trained composer, this was a matter of course for him, so Lucier naturally uses 'classical' musical notation to write his compositions. How-

ever, the layout of the drawing leaves open in which space and at what distance vessels and loudspeakers are to be placed. What seems clear is the juxtaposition of one vessel and one loudspeaker in each case, a fact which is also verbally described in his concept text. The construction of this sound installation is quite accurately described and explained in Lucier's notation. However, the tuning of the feedback sounds in the specific exhibition space requires a sound expert who is familiar with Lucier's artistic work. He is the one who has to interpret these instructions in a way which is not much different from the interpretation of a notation in music by a musician.

Example III: Notation as an Installation in Space

The third and final example is devoted to multi-disciplinary artist living in Berlin, Stefan Roigk, with "entfaltungen / desenvolvimientos" (2015–2017), a work that pursues the idea of a three-dimensional notation as an installation in space. What is particular about this piece is that it was presented in four different exhibitions and venues, with its according variations: at the Museo de Arte Contemporáneo Alfredo Zalce in Morelia (2015), at Ex Teresa Arte Actual in Mexico City (2016), at the Kunstraum Kreuzberg in Berlin (2016/2017) and at the Museo de Arte Contemporáneo of Oaxaca (2017). The selection of materials in this installation was inspired by, or stems from, the observation of everyday Mexican life, during Stefan Roigks' one-month artistic residency in 2015 in Morelia, which was part of the three-year residency and exhibition project called "entre límites," produced by singuhr – projects Berlin.

In compiling the visual and sonic components of the installation, Roigk deliberately follows his idea of a spatial notation, which, according to him, represents a *mise en place* rather than a a *mise en page*, that is, a sort of space layout or drawing in space. The space could be said to be treated as a piece of paper with visual and sonic artifacts on it. In order to prepare the work mentally, Roigk drew construction drafts for the first realization in Morelia (Image 7).

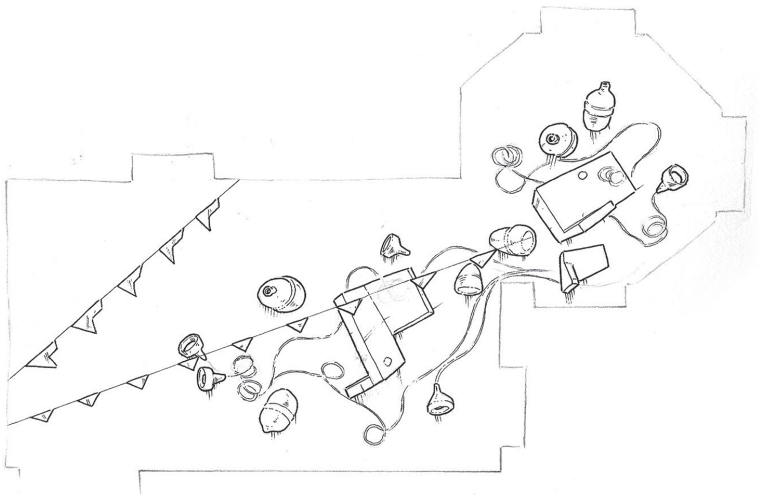

Image 7: Stefan Roigk "entfaltungen / desenvolvimientos" (2015), drawing.

In these drafts, he also establishes a difference between a graphic notation and a musical graphics: for him it is not a matter of transforming a graphic notation into sounding music, but of the visual and acoustic elements of a notation becoming musicalized by the visitor in the space. A notation in space allows the visitor to take up different positions through his or her movement, and thus to perceive the notation from different perspectives and to reassemble it again and again in different ways.

According to his drawing there are many possible changes of perspective in space: what seems far apart is perceived as being close together, *et cetera*, both in terms of the visual and the sounding elements. This means that the eight-channel composition produced by Roigk for this installation was not an interpretation of the visual notation in space, but a part of the overall space notation.

The dynamically arranged fragments of the water bottles, for example, which are moulded with papier-mâché, have something polyrhythmic in their arrangement and may therefore even evoke the association of shattering glass. In contrast to this, the objects made out of concrete are resting points in the room: these concrete elements can also be found in everyday public spaces.

In combination with the sounds, which are also constantly changing, and projected in different directions, new individual sound spaces emerge ever again. The sound also conquers the room and thus continues and expands it. The composition of sounds permanently moves from one loudspeaker to the next, thus enhancing the dynamic experience, which is esthetically supported by cable routing.

Despite the almost identical basic material used in all four locations, each work was perceived in a completely different way, mainly due to each specific and distinct spatial reference. In contrast to the first drawings made in the context of the first exhibition in Morelia, photographs of each individual installation show how the disposition changed according to the spatial possibilities available for the development of each version (Image 8).

Image 8: Stefan Roigk "entfaltungen / desenvolvimientos" as presented in Morelia (2015), Mexico City (2016), Berlin (2016/17), and Oaxaca (2017).
Photos and montage by the artist.

These notations are reminiscent of meandering structures and objects in space and, in the overall view, expand the perception of both the visual and the sonic objects themselves. Thus, Roigk's notations in space are in the best sense also a kind of instruction for a holistic aesthetic experience

in space, rather than notations for construction, composition or programming.

Sources

De la Motte-Haber, Helga. 1999. *Klangkunst. Handbuch der Musik im 20. Jahrhundert*. Vol. 12. Laaber: Laaber-Verlag.

Leitner, Bernhard. 2008. *P.U.L.S.E. Räume der Zeit / Spaces in Time*. Ostfildern: Hatje Cantz.

Seiffarth, Carsten, ed. 2017. *Entre límites / Zwischen Grenzen – Berlin. Klangkunst aus Mexiko und Deutschland / Sound Art from Mexico and Germany*. Berlin: singuhr.