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Sound, Poetry, and Meditation in Electronic Intermedia Performance: The Example of Pauline Oliveros' Deep Listening

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Abstract

This article delves into the interplay between sound, poetry, and meditation within electronic performance, from the point of view of the intermedia studies. Highlighting a transformative impact, it traces the historical evolution of sound technologies in mixed-art practices, such as Pauline Oliveros' Deep Listening approach, which also illustrates a shift towards participatory and immersive experiences. Her work, integrating electronic sound manipulation with meditative and poetic elements, serves as a cornerstone for exploring the tensions and correlations between electronic mediation and lived experiences, while questioning the benefits of an augmented humanity. The analysis of Oliveros' contributions including poetry and meditation shows how they foster a deeper connection to the otherness, and enhance human creativity and awareness. Investigating the dynamic relationship between technology and textuality, the idea of technotext is introduced to underscore the role of combined electronic sound, poetry, and meditation in challenging conventional artistic boundaries, but also in promoting a holistic approach to creativity and community engagement.

Keywords: intermedia performance, sound technologies, deep listening, electronic mediation, sound poetry, community engagement

Sound, Poetry, and Meditation in Electronic Intermedia Performance: The Example of Pauline Oliveros' Deep Listening

Sound recording has become one of the mediations of literary and artistic practices since the invention of Edison's cylinders in the 19th century. From the tape and the vinyl recording during the 20th century to the computer processing of sound, a huge step has been made, allowing artists to widen the reach of their work and to experiment other means of expression. Artistic performance and stage poetry have been impacted by the miniaturization of the trace left by the lived experience and by the invention of portable devices easier to manipulate. Since the end of the 19th century, the artists and the poets of the European, North American and East Asian modernities, on whom the inquiries of this article will be focused, have been fascinated by the ubiquity effect of the voice transmission (such as the radio) and the voice recording (such as the phonograph) that puts into question the simultaneous presence and absence of the body of the performer. The Second World War II development in the dematerialization process and its increased quality have then changed the value of such recordings, but also the practices and the perceptions of the listener thanks to a progressively more immersive approach. From the artist's point of view, the sound transformations by electronics, then its digitalization, is an easier way to edit a piece but also a source of experimentations.

At the root of electro music, the sampling of sounds whether from human or from natural origins has been used by experimental composers such as John Cage in the United-States in the 1950's. At the same time, serial and electronic compositions in Europe were developed by composers such as Pierre Boulez, Luciano Berio and Karlheinz Stockhausen. Pierre Boulez created pieces of serial music by remediating poems,

i.e., from Stéphane Mallarmé and René Char. The sampling and the repetition effects in music also highlighted issues for the literary creation and for mixed-art performance, as expressed through the Beat Generation's works of Allan Ginsberg, Gregory Corso and Peter Orlovsky, and through the Fluxus practices of Mieko Shiomi, Yôko Ono and Toshi Ishiyanagi. The evolution of sound technologies questioned the traditional spaces of art and literature, and transformed the ancient oral and ritualistic stage practices.

Pauline Oliveros (1932-2016) was a composer and performer who focused on improvisation, electro-acoustic and meditation. She published the handbook *Deep Listening: A Composer's Sound Practice* (2005), that records her teachings, workshops and retreats. Some of the texts she used to guide the participants can be considered as poetry and the Deep Listening practices included verbal language (Oliveros, 2001, p. 51). The material of the recordings she often used for her participative performances and for her retreats are made from natural, human and non-human sounds. Throughout the decades, Oliveros started to record with wire spools and went on with the most advanced computer electronics (Oliveros & Arcangel, 2009). Despite using electronic materials, the fact that the participants focused on their thoughts and on the environment was also part of the performance. Considered as a lifelong practice, the Deep Listening activities started in 1981, while integrating awareness, bodywork, human and environmental interactions, and sonic meditation (Oliveros 2005, p. 5, 31, 32).

With the example of Pauline Oliveros' *Deep listening*, two aspects of the augmented humanity will be explored: on the one hand, the art and literature benefit from new mediations and new experimentations (democratization, broadcasting, technical reproducibility, transformation of the relational processes…); and on the other hand, the artists and performers crave for a lived experience of the world, creating more awareness in relation to others and to a greater environment. We will thus question the potential tensions rising from this co-presence but also the possibilities for a renewed access to an anthropological and a non-anthropological life force through sound, poetry, and meditation. To that

end, the word *technotext* will refer in this article to the dynamic interplay between technology and text (in the broad sense, as a sequence of signs for human expression, whether musical, verbal or physical), encompassing how technological advancements shape the creation, dissemination and interpretation of literary and artistic works. In the context of Oliveros' work, the word *technotext* embodies the integration of electronic sound practices and participatory performance, illustrating how technology enhances artistic expression and audience engagement. It highlights the transformative potential of sound technologies, such as recording and digital manipulation, in redefining traditional notions of creativity, authorship, and the sensory experience of mixed-art. This perspective also emphasizes the historical evolution of textuality, from early writing systems (either from literary and musical backgrounds) to contemporary digital media, and the implications of these changes for a different understanding of the boundaries of literature, linguistics and media studies. By examining the role of technology in Oliveros' *Deep Listening*, the word *technotext* underscores the importance of community, awareness, and the lived experience in artistic endeavours, fostering a holistic approach to sound, poetry and meditation. The idea of *technotext* might as well encapsulate the multifaceted relationships between technology and text, reflecting both the challenges and opportunities presented by digital innovations in the arts.

1 Echoes of change: Technology, poetry and community in contemporary practices

Pauline Oliveros is best known for her practices that emphasise listening, community engagement, and technology integration in music-making. Central to her creation is the *Deep Listening*, which encourages heightened awareness of sound and the environment, fostering a collaborative approach to music that transcends traditional performance hierarchies. This practice is about auditory perception and fostering a communal experience that redefines the relationship between the artist and the audience. Deep Listening is described as a method that enhances musical sensitivity and promotes a deeper understanding of non-verbal

communication and interaction among participants. Lech Kalita (2020) highlighted the curative potential of the Deep Listening method, suggesting that it can improve the therapeutic dialogues, thus bridging the gap between music and psychological practice. Drake Andersen's exploration of the role of technology also showed that her method facilitated social interaction, particularly in telematic performances making use of the Adaptive Use Musical Instrument (AUMI) (Andersen, 2022). The Deep Listening initiatives thus illustrate how Oliveros's music serves as a vehicle for therapy, community-building and social engagement, emphasising human and mediatic collaboration.

As Oliveros' approach integrated technological advancements in sound recording and electronic manipulation to enhance artistic expression and community engagement, a short history of the evolution of sound technologies is crucial for understanding her work. Indeed, Theresa Sauter (2013) fostered a nuanced historical approach of modern practices that recognises the interplay between technology and individual expression. The tension between electronic mediation and lived experiences is certainly a recurring theme in art studies, as it raises questions about the authenticity of artistic expression in a technologically mediated world. Carolyn Birdsall (2018) also examined the development of sound recording and archiving, highlighting how these technologies have shaped artistic practices and perceptions of art. The historical context that will be traced in this article is therefore essential for appreciating how Oliveros uses electronic mediation to create immersive experiences that challenge traditional boundaries of art.

Analysing the work of Pierre Schaeffer and relating to the lived experience, Brian Kane (2007) explored the concept of sound objects and their phenomenological implications, suggesting that the revival of sound objects in contemporary practices reflected a broader trend towards experiential engagement in the arts. Oliveros' work also illustrates this shift towards participatory and immersive experiences in performative arts, while insisting on community involvement and the transformative potential of sound in shaping social spaces. In a case study related to the history of street music, Paul Simpson (2016) further elaborated on

this by examining how sound can produce social and political effects, reinforcing the fact that sound is not merely an aesthetic element but a powerful medium for social interaction and change. Regarding the use of electronics, Hector Rodríguez (2006) also discussed technology as an artistic medium, emphasising its ability to facilitate new expression and interactive forms. In the field of Augmented Reality (AR), this perspective is echoed by Syarifah Nurleyana Wafa (2022) who noted that digital tools and platforms have transformed art creation, allowing artists to reach wider audiences and engage them in novel ways. We can consequently argue that Oliveros' work might not only allow for the enhancement of human creativity and awareness through sound, but also redefine the audience's role in the artistic process.

The role of space and environment in Oliveros's compositions is another critical aspect of her work. As noted by Franciscos Bowen and Nicholás Pérez (2024), Oliveros, along with other contemporary composers, utilised the acoustic qualities of performance spaces as integral components of her compositions. This site-specific approach allows for a dynamic interaction between sound and space, creating unique auditory experiences that reflect the context of the performance. Furthermore, based on Pierre Shaeffer's research, Ulf Holbrook (2019) study on the changes made to timbral material through acousmatic spatial listening and the subjective analysis affordance of the listeners' placement and perspective, allows us to elaborate on Oliveros's use of delay lines to manipulate sound, also effectively transforming the listening space and enhancing the audience's engagement within the performance. The latter goes along with Oliveros's Deep Listening and Sonic Meditations, which are a pedagogical tool encouraging active participation and mindfulness among listeners. This approach is discussed in various studies, including those by Gelsey Bell and Pauline Oliveros herself (2017), and by Diego Kohn (2020), who explored the meditative aspects of her work and its implications for understanding voice and sound. Indeed, Oliveros' meditations invited participants to engage with sound contemplatively and challenged conventional notions of authorship and agency in music-making. Despite a strong attention given to the meditative side of her work, the body similarly took part into her practice,

especially through the body-mind interactions and the idea of liberation she seemed to have fostered. Taking part into other kind of liberation processes, Oliveros's work is more precisely situated within the broader context of feminist and queer musical practices. This perspective is partly echoed by John Kapusta (2021), who rather positioned Oliveros as a somatic feminist, that is to say, integrating somatic knowledge into her musical practice: he analysed Oliveros' work within the broader somatic movement in arts, where the inner experience of a body is crucial and connects the aesthetics and the living body, but also activism and bodily practices. This intersection of somatic feminism and music shows how Oliveros engaged with significant social movements advocating equality and representation.

In this article, as highlighted in the introduction, the word *technotext* embodies the integration of electronic sound practices and participatory performance related to textuality, also illustrating how technology might enhance intermedia expression and audience engagement. Thus, the methodological framework involves an examination of Oliveros' Deep Listening practices and their implications for literary, artistic, and cognitive processes. First of all, the evolution of sound technologies in intermedia performance is traced, underlining their impact on artistic expression and performance. This contextualisation is essential to better understand how Oliveros' work emphasized awareness and community engagement in artistic practices, as her Deep Listening activities integrated mindfulness, bodywork, human and environmental interactions, and sonic meditation, echoing the therapeutic potential highlighted by Kalita (2020). The transformative effect of sound technologies is finally investigated in redefining the traditional relation to spectacle and to sensory experience. Indeed, Oliveros' workshops were grounded on various cognitive strategies employed by listeners, fostering auditory memory and attentional focus, as noted in another context by Stephen McAdams and Emmanuel Bigand (1993) about sound-based cognition.

2 Augmented humanity: electronics for mixed-art performance

2.1 From concert halls to poetic spaces and brain waves

In the 1950's, in North America and in Europe, the equipment from the electronic studios was already used in the concert halls. In the early 1960's, experimental composers invented and adapted portable electronic technology to create innovative pieces exploiting new electronic sound sources[1], thus opening the way to what is called nowadays electro music. For example, in the United-States, Gordon Mumma's live compositions were based on electronic custom-procedures, custom-circuitry and custom-configurations (Nyman, p. 91). John Cage also used barely perceptible sounds to electronically amplify them, like in the piece *0'00"* (1962) where the sound of water being swallowed was augmented. Likewise, in Europe, but associating several arts and fostering poetry outside the book, Edgard Varèse, Le Corbusier and Iannis Xenakis created a sound and space installation called *Poème electronique*[2] [Electronic Poem] (1958), bringing together the idea of a new poetical space, with an innovative architecture and 400 speakers, for the audience to experiment the movement of sound in space.

In the *a cappella* vocal work *Serenely Beaming and Leaning on a Five-barred Gate* (1970), Gavin Bryars used close microphones, recorders and stereo headphones for 64 performers separated in several rows, each row listening to the tape record of the next row (Nyman, p. 93). The first row of performers listened to spoken verse by Patience Strong, then they recorded what they heard of the verse, then the second row

1 Luciano Berio, *Différences*, 1958; Edgard Varèse & Le Corbusier, *Poème electronique*, 1958; Karlheinz Stockhausen, *Kontakte*, 1958-60; John Cage, *Variations II*, 1961; Christian Wolff, *For 1, 2 or 3 People*, 1964.

2 See the film that was made from the installation at the Philipps Pavilion at the 1958 Brussels World's Fair: https://www.youtube.com/watch?v=hkQbs1ankQc. The film retraces the history of humanity and highlights tensions between the two faces of humanity (war, atomic bomb, genocide *vs.* love, creativity, evolution). It is made from a collage of film, photography and architectural design, modified by overlapping colorful painting and rhythmic apparition, and associated with electronic music.

recorded what the participants heard from the first row, and so on. The result is the transformation and the reduction of the initial poem, whose final state is expected to be one of the forms of the concentration of the poem itself, while resulting in the creation of a vocal piece of music with speaking voices.

Figure 1: **Le Corbusier and Iannis Xenakis, Philipps Pavilion, Brussels World's Fair, 1958.** Photography by Wouter Hagens, Personal work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=4596780

Deepening the artistic experimentation into the body-mind connection, in *Music for Solo Performer* (1965), Alvin Lucier used the performer's body and mind as the environment for his piece. Electrodes were being attached to the performer's head, capturing alpha brain waves, which are now known to be related to a deep state of relaxation, but were at the time perceived as related to visualizing processing. The alpha neu-

ral oscillations were translated into a sound that was recorded and then amplified in the room for the audience. A work of art such as *Dreamachine* by the Beat Generation's artists Brion Gysin and Ian Sommerville was also related to recent discoveries in neurosciences. It was grounded on the effects of the repetition of a spinning object with holes emitting light, and on the production of alpha brain wave for relaxation.

Figure 2: **Burroughs and Woodard with Dreamachine, 1997.**
Photography by John Aes-Nihil, Judgtastic, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=92729183

2.2 Women in electronic sound practices

Contemporary to these artists but rarely put in the spotlight and even erased from major essays of musical history[3], women composers and performers using electronics were nonetheless very active and extremely innovative after WWII, such as Bebe Barron with her magnetic tape pieces composed for science-fiction movies and shows like the first *Doctor Who* (1969-1989). Daphne Oram created an electronic machine able to produce graphical sounds called *oramics*[4]. Éliane Radigue invented what she called the *propositions sonores* [sonic propositions], working on tapes with feedback. She and Wendy Carlos both used the first monophonic analogue modular synthesizers. Suzanne Ciani used the quadraphonic sound from speakers, also for the benefits of the advertisement industry[5]. Maryanne Amacher worked on psychoacoustic phenomena pieces, also composing for contemporary choreographers like Merce Cunningham. Laurie Spiegel invented the first software program for composing music on Macintosh and invented new soundscapes with computers in the 1970's, composing what the critics qualified as "the earliest computer music that was audible" (Rovner, 2020). Many of their practices were related to theatre, science-fiction, literary performance, contemporary dance, and later to software programming.

3 See the Quebecker documentary *Sisters with Transistors* (2020) by Liza Rovner. Trailer visible here: https://www.youtube.com/watch?v=7r-3hlzpV7M&t=94s.

See also the French movie *The Shock of the Future* (2019) by Marc Collin. Trailer visible here: https://www.imdb.com/title/tt8081326/?ref_=vp_vi_tt.

4 Drawing a sound from an image and *vice versa*.

5 Quadrophonic sound was innovative at the time and is called nowadays a 4.0. surround sound system.

Figure 3: **Maryanne Amacher, 2006.** Photography by Sascha Pohflepp, Maryanne Amacher, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=2915002

Similarly, Pauline Oliveros was a ground-breaking artist. She invented in the 1960's the Expanded Instrument System (EIS), a series of delays and audio controls hooked up to foot pedals, that allowed her to manipulate the sound of her accordion and to fabricate new sounds from new spaces. According to Oliveros, this system was "about the human/machine relationship or interface – the power of technology to expand the mind." (Oliveros & Arcangel, 2009). She was closely related to US governmental experimental projects at the Rensselaer Polytechnic Institute (NY) where she worked. She started using DSL lines, video telephone technology and internet in the 1990's (i.e., Skype, the computing platform of virtual world Second Life[6], chats[7]). Then, she used in 2001 the Internet2, and more largely the DARPA technologies (satellites, drones, voice interfaces, personal computer, smart phones…), as new means for multisite and collaborative performances. The telematic medium was

6 See Acquaviva, F. (2016), *Pauli(o)ne*. Multisite performance with Vancouver on-site and international Second Life performers.

7 Performance at Sundance, 2007; Oliveros said: "I sat in my bed and I iChatted it over video" (Oliveros & Arcangel, 2009).

also a way to "lose the boundary between what's being televised and what's real" (Oliveros & Arcangel, 2009). The use of technologies and of new media was not some kind of dystopic dream about an augmented humanity. It was grounded on an altruistic perspective. Oliveros argued that the virtual and digital spheres could help for developing "a more peaceful world" (Oliveros & Arcangel, 2009) and that a Deep Listening mind is essential for an efficient negotiation (IONE, 2021): "People who listen together grow and expand together" (Oliveros & Archangel, 2009). Many sound meditation performances, led by Oliveros playing her augmented accordion, with her partner the poet and psychotherapist IONE, had humanitarian aims for peace, such as the "refugee meditation" (Lixenberg, 2016, 1'09-2') whose ambition was to allow a humanist identification to the figure of a refugee, in order to raise awareness, whether or not one might perceive this practice as really effective.

If augmented humanity refers to the enhancement of human capabilities and experiences through the integration of technology, cultivating another connection with the world and promoting greater awareness and empathy, and if it emphasizes the use of technological advancements not merely for efficiency or convenience but for enriching human interactions, creativity and understanding, then we can argue that Oliveros' use of technology in her artistic practices constitute an embodiment of augmented humanity. Her work with the Expanded Instrument System (EIS) and other technological tools was not just about creating new sounds but about expanding the human experience by nurturing new relational activities. Technological augmentation enabled her to explore the boundaries of music and sound, especially through the Deep Listening, that encouraged participants to listen acutely to their environment and to each other, activity made to foster a sense of community and empathy. The use of telematic performances further extended this community, connecting people across geographical frontiers and creating a shared space for artistic and humanistic exploration.

Oliveros' integration of mindfulness and bodywork into her sound retreats and performances highlighted the potential of technology to enhance human presence to oneself. By combining technological tools

with meditative practices, as we will see later within a few examples, she demonstrated how technology could be used to deepen our connection to ourselves and our surroundings, promoting a more mindful and engaged way of living. Grounded in an altruistic vision, despite also being supported by economic reasons, her sound meditation practices aimed nonetheless at promoting peace and raising awareness about social issues and self-awareness in relation to others. It illustrates how technological augmentation could be harnessed for humanitarian purposes, in coherence with the core principles of a beneficial augmented humanity, which prioritize the use of technology to enhance human well-being and foster a more compassionate and connected world.

2.3 Electronics, words and community belonging

According to Oliveros, despite sound being often demoted in such a visual world of ours, each culture is shaped by hearing processes that are developed thanks to training and experience, and both the modes of "focal and global hearing" help all kinds of being to connect with a wider environment. The idea of a modern world where sound would be frequently overlooked could be questioned. Indeed, the study of soundscapes has emerged as a significant interdisciplinary field, particularly in the context of urban planning, environmental psychology, and architecture. Soundscapes refer to the acoustic environment as perceived by humans, encompassing both natural and anthropogenic sounds. The importance of soundscapes lies in their profound impact on human well-being, cognitive function, and social interactions. Research has shown that well-designed soundscapes can enhance the quality of life by reducing stress, improving mood, and fostering a sense of place and community. For instance, the systematic literature review by Army Wiratama et al. (2024) highlighted the role of soundscapes in architectural design, emphasizing how auditory elements contribute to the fundamental characteristics and functionality of built environments. Furthermore, Brigitte Schulte-Fortkamp and André Fiebig (2023) discussed the evolution of soundscape research, noting its shift from merely controlling noise to understanding the holistic experience of acoustic

environments. This paradigm shift underscored the need for interdisciplinary approaches to create soundscapes that are not only acoustically pleasant but also culturally and contextually relevant. Oliveros' work seemed already well informed about these processes that relate in many ways to her practice, also linked to wording. This is why she distinguished "listening", as in the Deep Listening, and "hearing". Hearing and listening, though often used interchangeably, are distinct processes. Hearing is a passive, physiological function where sound waves are detected by the ears and transmitted to the brain. It occurs automatically and does not require conscious effort. Listening, on the other hand, is an active, cognitive process that involves interpreting and making sense of the sounds heard. It requires attention, concentration, and mental engagement. While hearing is a sensory experience, listening is a skill that can be developed and refined. Effective listening involves not only understanding the words and sounds but also recognizing the emotions and intentions behind them. This distinction is crucial in various contexts where the quality of listening can significantly impact outcomes and experiences.

In the 1996 Deep Listening activity called "Cross Overs" (Oliveros, 2005, p. 54), also operating as a questioning of this same distinction between listening and hearing, a poem guides the practice: words and sounds seam interchangeable. A musical phrase is a sentence, and words can be listened to, like music:

> Sound a word or a sound.
> Listen — surprise.
> Sound a word as a sound.
> Sound a sound as a word.
> Sound a sound until it is a word.
> Sound a word until it is a sound.
> Sound a sentence of sounds.
> Sound a phrase of words.

The text-instruction created for this Deep Listening practice by Oliveros is crafted as a poem to foster a relative freedom of mind and to

enhance the interpretative possibilities during the workshop. The poetic structure, characterized by the use of dashes, repetitions, alliterations, and assonances, plays a crucial role in this process. The dash, in particular, serves a dual purpose: it separates and connects ideas simultaneously, allowing for a fluid and dynamic flow of thought. The second verse, "Listen — surprise", is especially significant as it intertwines meanings related to physical sensation, sound perception, and emotion. The repetition of the words "words" and "sounds" blurs the boundaries between them, inviting listeners to explore the fluidity of language and sound, while creating a trance-like effect. By sounding a word as a sound and a sound as a word, participants engage in a transformative auditory experience that deepens their connection to the environment and to other beings, and enhances their verbal expression during the performance. This practice not only nurtures individual creativity by guiding participants towards other cognitive levels, but also fosters a collective sense of exploration and discovery.

Likewise, being aware of the environment has an important role in the "Field Recording" (2005, p. 27), where electronics were a mean to help practitioners focus on their home environment, whether natural or urban, underlining at the same time the difficulty to record environmental sounds. The Deep Listening method also sometimes focused on paying attention to one or several conversations at a time, both recorded and/or live, such as proposed in the practice "Discussion" realized after a walking meditation, and in "Four Modes of Thought" that instructed to concentrate on mentally classifying the exchanges you heard from other people's conversations (p. 21). These activities were not only related to the use of technology to multiply the sources of the sounds and the participant's relations to them, but also explored the cognitive paths of sounds, as shown by cognitive scientists (McAdams & Bigand, 1993, p. 2-6), while investigating the way listeners perceived, recognized, and organized sounds in complex environments. According to cognitive sciences, this could allow the listener to foster auditory memory and attentional focus when processing the information (McAdams & Bigand, p. 12). The structured exercises in Oliveros' workshops mirrored the various cognitive strategies employed by listeners and underlined by

sciences in other contexts (McAdams & Bigand, p. 20), thanks to an open-end practice where creativity and several interpretations were possible. Oliveros' approach cultivated individual emotional responses elicited by sound, that could be transformed by the social dimension of her workshops and performances, where the group energy and the community engagement simultaneously induced the individual perception. These connections appeared clearly in activities such as the 1975 "Collective Environmental Composition" (Oliveros, 2005, p. 31) where the participants were asked to transcribe their Deep Listening experience through creative writing, poetry, or drawing. Oliveros perceived these intermedia practices as wake-up calls and ways to expand human being, that she often perceived as reduced to a microsphere (Oliveros, 2001, p. 47). She called for the use of Deep Listening as a means to promote "a radically transformed social matrix in which compassion and love are the core motivating principles guiding creative decision making and our actions in the world" (p. 62). This example of a beneficial augmented humanity through mixed-art performance could be understood as both an aesthetics and an ethics, opened to "cultural flexibility" (p. 62), also crossing borders between species (while listening to sounds from animal, vegetal, mineral origins) and putting into question the nation-state temptations in times of crisis (when using inclusive methodologies grounded on crossed-listening of the otherness).

3 Tensions: the electronics and the lived practices

3.1 Sound poetry meditation and performance

Notwithstanding attractiveness, innovation and leading modes of creation, the use of electronics throughout the recent history of musical composition, nevertheless often raised questions. For instance, John Cage and Cornelius Cardew raised issues regarding the sound record of improvised performance. If the record allows us to keep a trace in the archives, "it has no more value than a postcard", according to Cage, because "it provides a knowledge of something that happened, whereas the

action was a non-knowledge of something that had not yet happened" (Nyman, p. 10). Also, the record of the performance of a sound piece is merely a fixation of one of the multiple variations of the interpretation and cannot be considered as the exact essence of the music piece (p. 11). As for Cardew, he insisted on the impossibility to give an exact record of what and how a performance is happening (room and sound qualities, atmosphere, vibrations…). He argued there was a divorce between the record and the "natural context" (p. 10).

With the use of electronics in intermedia performance, the normative bounds of art have been challenged. First of all, the 'silent' works after WWII, either in poetry, in visual art and in music, were a direct consequence of the sounds of war (alarms, bombs, fire) and of the silence after bombing, but also the sign of a difficulty to apprehend the horrors of industrialized genocide as underlined by Theodor Adorno. Then, the idea of an art masterpiece was pushed till its limits, but kept the core of it, which is the time-space continuum. Music performance was for example not perceived anymore as a succession of moments of time, but as an opened release of time, like one can hear in pieces structured by chance procedures made to create a random time frame and sound filling. It was also perceived as a sum of variations derived from the free use of material objects, whose intrinsic qualities (i.e., the weight of a sound object) associated to circumstances (i.e., a strong/medium/soft *vs.* a slow/medium/quick use) determined the length of the piece itself, as in Steve Reich's *Pendulum music* (1966). If music is time and space, then a music piece could be performed without perceptible sound and only be related to the presence of the audience in a certain time and space frame. Whether during performances, concerts or recordings, any presence in a room and even empty rooms could generate imperceptible sounds, despite it being called silence. In 1951, in an anechoic chamber at Harvard University, Cage experimented the most silent environment technology could produce at that time, and realized he could nonetheless still hear something, i.e., the blood pulsation and his own non-intentional sounds (Nyman, p. 26).

Time-centred considerations about performance also questioned the be-

ginning and the end of a sound: for a piano player, the sound may start in silence when the hand is suspended above the keyboard and when the musician breathes before the movement; the sound may start when the last perceptible echo of the last note of a piece has extinguished but also when the hands are released onto the knees of the musician. The attitude of the participants and the performer.s is thus important for the constitution of the piece itself. Éliane Radigue argued in an interview that "all the sonorous environment was eager to become a musical universe that both depended on the quality of listening, and on the way we organized some kind of dialogue between the sounds, what Pierre Schaeffer called *concrete music*[8]" (Rovner, 2020).

Similar to Oliveros when she associated meditation and sound practices, Toshi Ichiyanagi's *Improvisation P.1* (1975) used sound spacing effects in search for a Zen-inspired state of calmness and emptiness experimented by both the audience and the performer. The inquiries into the attitude of the participants led the artists to question the human mind processes. Ichiyanagi claimed that "it leave[d] things open", as a garden whose constitutive elements are not entirely controlled by its creator (Nyman, p. 111-112). Each of the participants of this type of experimental performance took part in the production process, which was simply life-based. Cage argued that experimental sound producing was "simply a way of waking up to the very life we're living" (p. 26), and he gave credit to Oliveros on this specific switch in musical creation. The humanitarian and social aspects of Oliveros' work highlighted this life-based feature. It is underlined in one of her interviews:

> I feel that one's interactions, the way one relates in an organization of any kind is political and social, and very important. The path that I hope to be on is one where the energy that comes out of the work that I do is beneficial for others as well as myself. I want my work to be mutually beneficial. I am not interested in

8 My own translation from French: "Tout l'univers sonore était susceptible de devenir un univers musical qui dépendait à la fois de la qualité d'écoute et de la manière dont on organisait une sorte de dialogue entre ces sons, ce que Schaeffer appelait musique concrète." (Rovner, 2020).

making an object of art and entertainment. I am interested in doing something that helps me to grow and expand and change as an individual, and in relation to others.

(Rovner, 2020, 47'26)

Figure 4: **Toshi Ichiyanagi,** 柳慧**, 1960.** Japanese Public Domain, https://commons.wikimedia.org/w/index.php?curid=57429756

Relationship between the self and the non-self, also between people, can be indeed materialized by the composer's creation of relations between the sounds[9]. The interactivity of the exchanges of sound, vibration, space, presence, and emotion is transformative from a physical and a psychological point of view. Experimental performance was thus closer to a life experience than to what is traditionally separately called art, music, and literature.

This vital perspective of experimental arts in the second half of the 20th

9 Cage wrote that he "would assume that relations would exist between sounds as they would exist between people and that these relationships are more complex than any [he] would be able to prescribe." (Nyman, p. 29).

century did not solely focus on human experience, despite the fact that an audience was still often considered a necessity in the realization of a work of art. George Brecht maintained that nature-produced "chance imagery" could be considered as a non-anthropologic form of art. This all goes along with the qualification of *event* (i.e., by the Fluxus artist George Brecht) for any performance activity, such as the work *Poem for Chairs, Tables, and Benches, Etc., or Other Sound Sources* (1960) by La Monte Young, whose mixed-art pieces were blurring even more the distinction between the arts and life. His *Compositions 1960* were meant for live performance and were text-grounded with instructions for the piano player and for the audience. The *Composition #5* was first performed at Berkeley:

> Turn a butterfly (or any number of butterflies) loose in the performance area.
> When the composition is over, be sure to allow the butterfly to fly away outside.
> The composition may be any length but if an unlimited amount of time is available, the doors and windows may be opened before the butterfly is turned loose and the composition may be considered finished when the butterfly flies away.
>
> (La Monte Young, *Composition 1960 no.5*, Piano Piece for Terry Riley[10])

The text-instruction in La Monte Young's *Composition #5* played a crucial role in shaping the performance and its reception. The repetition of the words "butterfly" and "performance" in the text underlined the presence of the insect in the art space, its beauty and elegance, but also what one could feel as an unexpected flight-and-pause / flight-and-pause sequence, which is also rhythm. Imprisoned in the room, its movements were related to the sound wave and the pulse, also produced by the piano composition. As for the members of the audience after the performance, the butterfly's release gave a sense of freedom and of lightness. Considering the fact that Young's practice could find relationships with East Asian traditional music (Indonesia, Japan…), and that he wrote

10 See Nyman, p. 84.

metaphorical texts in the form of *haiku*(s)[11], the text from *Compositions 1960* could evoke the "butterfly dream" of Zhuang Zhou wondering if he had dreamt he was a butterfly or if he was a butterfly dreaming he was Zhuang Zhou (Zhuangzi, chap. 2). In Young's text and performance, the sounds were closely related to the butterfly, and reverse, because the insect felt the vibrations of music. "A person should listen to what he ordinary just looks at, or look at things he would just ordinary hear", he said (Potter, 2000, p. 50). That is why the audience may have been taken away by a butterfly musical dream. Like in the Zhuangzi philosophical argument, every element of the performance reciprocally transformed and opened new doors for perception.

In a performance, the text-instruction serves multiple functions: it is a guide for the performers, a framework for the audience, and a conceptual anchor for the piece. By specifying actions and conditions, the text creates a structure within which the performance unfolds, yet it leaves room for spontaneity and interpretation. Young's instruction to "turn a butterfly loose" introduced an element of unpredictability and natural beauty, which contrasted with the structured environment of a concert hall. This juxtaposition challenged the audience to reconsider their perceptions of art and nature, and to find beauty in the unexpected and the ephemeral. Moreover, the text-instruction emphasized the importance of the audience's role in the performance. By allowing the butterfly to fly away outside, the audience participated in the completion of the piece, emphasizing the collaborative nature of Young's work. This participatory element was a hallmark of the Fluxus movement, which

11 The Japanese *haiku* practice is originally related to ancient Chinese poetry. See Clonts Ch., "Jacques Roubaud. Sémantisme spatial de l'Extrême-Orient" [Jacques Roubaud. Spatial Semanticism of the Far East], international symposium "Carrefours culturels : littérature, traduction, didactique", Wallonia-Brussels Research Centre/ Faculty of French and Francophone Studies of the University of Foreign Languages of Peking – BFSU, Beijing, 29 May 2021. Proceedings *Carrefours culturels: littérature – traduction - didactique*, Bruylant Academia ed./EME, Louvain-la-Neuve, Jan. 2023, 51-65; see also Clonts Ch., "Transpoétique de Jean-Pierre Balpe. Vers une post-culture numérique ?" [Transpoetics of Jean-Pierre Balpe. Towards a Digital Post-Culture?], *Interface. Journal of European Languages and Literatures*, no. 10, Taipei, National Taiwan University Press, oct. 2019, 35-52.

sought to break down the barriers between artist and audience, and to create art that was accessible and engaging for all.

Within a "butterfly dream", Young explored the nature of reality and the fluid boundaries between dreams and waking life. By evoking this story, the composer invited the audience to reflect on their own perceptions and to consider the possibility that art, like dreams, can offer new ways of understanding and experiencing the world. *Composition #5* is thus a powerful example of how text-based instructions are not merely a set of directions but a vital component that shapes the entire performance, highlighting the transformative power of words in the field of intermedia practices. In the same vein, in Oliveros' work, a shared sound poetry meditation and performance can be considered as a semi-silent participative piece breaking away from the standard of the sender/carrier/receiver information structure in a particular context, may it be of music, poetry, or meditation. On a global scale, it de-focuses the conventional barriers between the arts. It raises awareness about the fact that poetry and music can happen outside of the normative artistic-social environments for literature, music, and theatre. These practices also show that the physical time-space scope where sound, poetry and meditation happen, have an impact on the perception of the performance by the participants and can transform them.

3.2 Sonic Meditations and Quantum Listening

Long before Young's experimentation, Oliveros related her experimental music to the meditation practice, which started in 1953 when she received a tape recorder as a gift. Later, she went to Japan to record sounds and to practice meditation. She developed her art as participative *Sonic Meditations* (Oliveros, 2001, p. 49). Each individual of the audience of Oliveros' performances and retreats was perceived as a vector of change that could transform the environment perceived, but also as an individual being changed by the moment of the performance or by the collective practice. Listening was crucial for that means, especially when one considers what Oliveros called *Quantum Listening* (2001, p.

48), a simultaneous listening of several sounds coming from different sender, and carried by multimedia. As a holistic practice, her Quantum field of performances included the individual as well as the community, the society, the world, and the universe – if one takes into consideration the quantum physics. Oliveros' work and teaching opened the participants to the fact that creativity was wider than any specific type of art taken apart (Oliveros & Arcangel, 2009). She insisted on the fact that her "non-linear" teaching allowed to experience a "heightened awareness of sound and sounding and silence, without drugs" (Oliveros & Arcangel, 2009). Although the participants sometimes focused on listening in the dark, it was not solely about the ear, but about the body taken as a whole: for that reason, the participants practiced physical exercises based on Qigong, Tai Chi, and Yoga, as in the most ancient forms of training leading to philosophical thinking throughout the world, such as practiced in the Mediterranean, Indian and Chinese geographical areas.

Oliveros launched her first Deep Listening retreat in 1991 with the Tai Chi master and choreographer Heloise Gold, but her reflection started before that date. With the 1989 "New Sound Meditation" (Oliveros, 2005, p. 44), the participants focused on their own breath sound and on the other's: it allowed the audience to disinhibit their relation to body sounds and to create community bonding through the most fundamentally animal characteristic. In 1996, the poet and psychotherapist IONE joined the project, whose stage-poetry practice emphasized on lived-poetry, on life experience and on walking meditation (2001, p. 50-51). Considering the body, the mind and the arts allowed to listen to the inner self before producing a sound or silence, thus to a certain degree of awareness. That is why Oliveros' work also involved the extrasensory perception, which is when someone relates intuitively to other participants and tunes in (IONE, 2021), but also when someone connects with the acoustic environment, either coming from an electronic or a natural source, and with every being or object that inhabits this setting. With the Deep Listening practice, one could create a sonic picture which was related to the soundscape, based on "voice recognition, echo detection, spatial location, etc." which is exactly what visually impaired people can achieve (Oliveros, 2001, p. 52) in a visually oriented

society. Deep Listening included exercises such as "Old Sound, New Sound, Borrowed Sound Blue for voices" (Oliveros, 2005, p. 45) where sound, colour and time were related to emotions like love[12]. Such practice compelled Oliveros to call for an increased aurally oriented science that would give humans a more comprehensive sense of the universe's sounds thanks to the use of the quantum mechanics (p. 55). This science shows how both micro-particles are pieces of matter and waves transferring energy, and organizing a quantum force field or aura that one cannot see but can feel (p. 59). This field is thus what the Oliveros' participants were experimenting as a unified logic and form, composed not only by humans but also by non-humans, i.e., through interspecies communication and multidimensional access (Lixenberg, 2016, 7'10-7'30); the participants were at the same time transforming this quantum field. When they open themselves to this field, allowed in this specific case by mixed-art practices with electronics, they opened new cognitive paths they were not aware of before, activating layers of brain and body processing: "The skin listens too", writes Oliveros (p. 60), as she experienced it personally through Qigong and Yoga.

In the experimental music piece *Four Meditations and Sound Geometrics* (1991-1997), in collaboration with the Belgian Musiques Nouvelles Orchestra, Oliveros and poet IONE created an auditory experience that blended a mixed chamber orchestra, an expanded instrument system, and a 5.1 surround sound system. The audience was immersed in a synchronized text-sound improvisation (Oliveros et al., 2016, 20'07), where IONE's spoken poetry intertwined with the music. It was performed in French, English, and in invented languages, but also free sounds, humming, and animal-mimicking. In the performances, IONE's texts were generally created on stage in direct relation to the music and the audience, and were improvised. IONE's poems were not simply added to the music: they were an integral part of the overall composition, contributing to the meditative experience. Indeed, the performers' sounds were picked up by the microphones and processed through Expanded Instrument System, also transforming and moving the sounds in space

12 The title and the poem refer to the borrowed blue thing for wedding that is said to bring luck.

thanks to the 5.1 surround system.

***Figure 5*: IONE and Oliveros on stage, Mexico City, 2006.**
Photography by Xocoyote, CC BY-SA 3.0, https://en.wikipedia.org/w/index.php?curid=7139397

The 2016 recording of this spatial manipulation of sound showcases IONE's use of sonorous plays, such as alliterations in [s] and [l], and word repetitions like "t'es qui" [who are you], "who", and "dream/rêve" in both French and English. These repetitive elements, including puns like "suis-moi" [follow me] and "je suis" [I am], which sound similar in French, evoke profound ontological questions about existence and the dreamlike nature of life. The poem's sentences, such as "voyager. être. être le rêve" [to travel. to be. to be the dream][13], guide listeners through a contemplative journey. The electronic sounds, the foreign language and the free sounds participate in the estrangement produced by the piece, and in the creation of a trance-like feeling that does not unfold in an anticipated manner: the oral poetry, much like the orchestral music, flows and pauses in unexpected ways, with answers to questions some-

13 The subjective punctuation of the transcription of the spoken text has been added here in order to represent the pauses between the sequences. No punctuation means there is no pause.

times seeming unrelated or sentences stopping abruptly[14]. The expression "my funny Valentine" evokes jazz music accompanied by a singing voice – esp. Chet Baker; it similarly relates to the evocation of the improvisational foundation of jazz music. This unpredictability mirrors the improvisational nature of the performance. That is why Oliveros humorously advocated for an "improvatory of music" (2001, p. 56), as opposed to a traditional Conservatoire, highlighting the importance of improvisation and creativity in musical education. Humour is also part of the poetic work, perceived as an auditory experience and illustrated by the dynamic interplay of sounds and words: syntagma and sentence repetitions such as "t'es qui t'es qui t'es qui t'es qui ahhh?" and "I'm home I'm home I'm home" emphasize the rhythmic and emotional intensity of the piece, reinforcing themes of identity and belonging. The fragmented narrative, seen in "et là la maison tu te rappelles ce rêve où c'était cette maison? where was it? cannot find dit. c'est loin très loin. la femme dans la maison elle t'attend mais c'est très loin c'est trop loin", reflects the non-linear nature of dream and memory, and the potential of poetic language to unveil non-formatted forms of the human thought. In sequences like "jump in the water saute dans l'eau" and "I come down to answer your call tu te rappelles de moi? Je suis", the bilingual phrases thus highlight a transpoetics[15] where language is not a barrier, as in the

14 One can hear fragments such as "jump in the water saute dans l'eau" (Oliveros et al., 2016, 2'19); "t'es qui t'es qui t'es qui t'es qui ahhh?" (2'59); "my funny Valentine" (3'40); "scorpions in your pockets. sand at your feet. sun on your neck. listen. limonade. these stars falling down. drink them." (6'18-7'17); "I'm home I'm home I'm home" (7'35-7'55); "I come down to answer your call tu te rappelles de moi? Je suis" (8'36-9') ; et là la maison tu te rappelles ce rêve où c'était cette maison? where was it? cannot find dit. c'est loin très loin. la femme dans la maison elle t'attend mais c'est très loin c'est trop loin. (11'29-12'24); "je suis l'antienne. de tes rêves. suis-moi. je suis qui. tu es. I am who I am. I am. who you are. who. who." (13'06-14'); "je fais un voyage dans ce rêve. voyager. être. être le rêve."; "n'oublie jamais. c'est toujours comme ça dans les rêves." (17'20-19').

15 The word "transpoetics" highlights both the transformative effects of the work of art, and a transitional and transcultural practice. See Clonts, Ch., Invited Conference "Transpoétiques chinoises et japonaises: (im)permanences holistiques francophones" [Chinese and Japanese Transpoetics: Francophone Holistic (im) permanences], French Studies and Modern Languages – Francophone Conference "Global French", American University of Paris (AUP), 23 Sept. 2024; see also

practice of intercomprehension[16]. It also underlines the fact a foreign language that is not understood can be perceived as musical. The musical composition is moreover suggested in the phonetic play upon the words, navigating between the two languages. Together, these stylistic elements illustrate the experimental nature of the poem, enhancing its performative aspect and the immersive experience of the public. This practice encourages the audience to try to make sense of the sounds and the words in a holistic manner, integrating their physical, emotional, and cognitive responses, but also to let go of oneself in the intermedia flow. By engaging with the poetic and improvisational elements of the performance, participants are able to explore new cognitive paths and develop a more intuitive understanding of sound and music. Poetry and more globally words are therefore integral to Oliveros' and IONE's approach, serving as a bridge between the auditory, physical and cognitive experiences of the participants.

4 Conclusion

Innovative electronic intermedia practices have significantly marked contemporary artistic expression and performance. Oliveros' Deep Listening method, which integrated electronic sound practices with body-mind participatory performance, illustrates the transformative potential of sound technologies in enhancing human creativity and awareness. By fostering a heightened sense of auditory perception and community engagement, Oliveros' work challenged traditional boundaries of art and redefined the sensory experience of mixed-art performance. Nevertheless, despite her extensive engagement with technology, Oliveros emphasized that she was "not a technologist" (Oliveros & Arcangel, 2009), using technology as a tool rather than hacking it, except maybe

see also Clonts Ch., "Transpoétique de Jean-Pierre Balpe. Vers une post-culture numérique ?" [Transpoetics of Jean-Pierre Balpe. Towards a Digital Post-Culture?], cited previously in footnote 11.

16 In communication, the intercomprehension is the ability to understand what someone says in a foreign language, without being able to speak the language itself. An intercomprehensive exchange is based on two or more persons, each speaking a different language, and still understanding each other.

conceptually. She was acutely aware of the impermanence of recent technologies, which quickly replaced the previous ones, making it difficult to keep pace: in 2009, she acknowledged that the next generation of composers and performers would be profoundly affected by this rapid technological evolution and the shift to self-publishing enabled by innovation and technology (Oliveros & Arcangel, 2009), which is also true in digital poetry. The goal of Oliveros' use of technologies in her mixed-art performances, workshops, and classes was to encourage participants to engage with their auditory surroundings, transforming the listening experience and fostering awareness of both human and environmental sounds. Her work illustrates how technological advancements can facilitate multisensorial experiences and collective practices, thereby expanding human creativity and consciousness through sound, text, and meditation.

Central to Oliveros' approach was the use of text, words, and poetry – especially with her partner IONE – which served as a bridge between sound, meditation, and community engagement. The poetic instructions in her *Deep Listening* handbook and her Sonic Meditations, characterized by alliterations, repetitions, and puns, are crafted to evoke specific auditory, meditative and emotional responses. This use of poetic language enhanced the participants' engagement, fostering a deeper connection to the sounds they produce and hear. The structured yet open-ended nature of these poetic instructions mirrors the cognitive strategies employed by the general listeners, promoting creativity and multiple interpretations. The idea of *technotext* is interesting for this exploration as it underscores the dynamic interplay between technology and textuality, illustrating how advancements in sound recording and electronic manipulation shape the creation, dissemination, and interpretation of artistic works. Oliveros' emphasis on active listening and use of poetic language in her practices highlighted the importance of words in deepening the connection between participants and their environment. This holistic approach not only nurtured individual creativity but also fostered a collective sense of exploration and discovery.

Oliveros' interdisciplinary approach, bridging gaps between psycholo-

gy, music, cognitive sciences, and environmental and intermedia studies, demonstrates the profound impact of sound on human well-being and social interactions. Her work invites ethical considerations about the use of technology in art, emphasizing mindfulness and the importance of human emotions in creativity. By integrating physical exercises and meditative practices, Oliveros' Deep Listening retreats offered a comprehensive framework for understanding the relationship between sound, body, and mind. Ultimately, Oliveros' contributions to sound art and mindful practices illustrates a profound engagement with technology and community in the arts. Through the interplay of sound, poetry, and meditation, Oliveros created a transformative artistic experience that enhanced human creativity and awareness, paving the way for future explorations in intermedia practices.

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