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**Sounding Immaterial.
Sound and Listening
in the Exhibition
Les Immatériaux
(Paris, 1985)**

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Sound

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Sound and Listening in the Exhibition “Les Immatériaux” (Paris, 1985)¹

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Introduction

The exhibition *Les Immatériaux* took place at the Centre Pompidou in Paris in 1985 and has since become one of the prime examples for the conjunction of artistic, theoretical and scientific discourses in the 20th century. Curated by the philosopher Jean-François Lyotard and the design theoretician Thierry Chaput for the Centre Pompidou’s Centre de Création Industrielle, cci, the show contained a great variety of exhibits that “manifested,” as Lyotard put it, the “postmodern” dematerialisation of the human body, of communication and memory, induced in particular by what the philosopher referred to as the “techno-sciences.”

In this paper, I want to introduce the ways in which sound and music, and thus also the listening visitor, were important for *Les Immatériaux* both as a theme, and as a scenographic dimension.

The neologism of the “immaterials” that Lyotard proposed for the exhibition was intended to highlight a new, transitional character of materiality. For example, the DNA is at the same time a physical entity, and it is a code that can be read, and rewritten by manipulating it on the material level. This materiality in transition, a quality of translatability of materials, was meant by the “immaterials” of the *Immatériaux*.

In the multiplicity of examples that the exhibition showed, the two main reference points were the human body on the one hand, and language on the other – the human body as the most irreducible material condition of thought, and language as its most abstract, most immaterial condition.

The particular temporal structure of sound, poised between the material and the immaterial, and the crucial role of the human voice in the articulation of language, emanating from the physical body, made sound and voice both obvious and crucial “media” for the articulation of the exhibition’s conceptual program.

This paper provides an overview over the different ways in which sound and music featured in *Les Immatériaux*, and indicates how strongly listening was part of the experience of the exhibition visitors. The three aspects I want to highlight are:

- the soundtrack which people heard over headphones as they were walking through the exhibition’s maze of metallic gaze walls;
- some exhibition sites which thematically focused on sound and music;
- and the concert series of electro-acoustic music organised by IRCAM, the sound research institute of the Centre Pompidou.

1 – This paper is based on a talk delivered at the Media Art Histories Conference 2019 – RE:SOUND, at Aalborg University, Denmark, on 20 August 2019. – It is here presented in the true sense of a “working paper,” i.e. as a set of preliminary research results which should function as a launching pad for further research into the sonic aspects of *Les Immatériaux*, e.g. by experts in sound studies and musicology. It is part of a longterm effort to study the exhibition and to make archival and other documentary sources

available to researchers. Among the *Working Papers* that have been published on the *Les Immatériaux Research* website are a detailed chronology of the exhibition’s preparation phase since 1981, and a personal record by Dolorès Lyotard describing the editorial process of the texts for the soundtrack; see Broeckmann/Vicet 2018, and D. Lyotard 2019, both at <http://les-immateriaux.net/working-papers/> [accessed 6 March 2020].

Besides the catalogues and accompanying publications, the most important research resource are the Public Archives of the Centre Pompidou, where many of the preparatory documents are kept, and the photo documentation of the exhibition, held at the Bibliothèque Kandinsky and available online on the website of the Centre Pompidou.² Among the merely three published studies that are based on substantial archival research, by Francesca Gallo, Antony Hudek, and Antonia Wunderlich respectively, all conducted in the early 2000s, the most important is probably the book by Antonia Wunderlich, *Der Philosoph im Museum* (2008), because it contains a very detailed verbal description of all the individual exhibition sites and their conceptual background, in the third part of the book that is entitled “*Phénoménologie de la visite*.” Wunderlich’s text is currently only available in German.³

Soundtrack, *bande-son*

The experience of the visitors was strongly influenced by a soundscape, intimately conveyed throughout the exhibition by direct transmission to headphones that the visitors were asked to wear. Both curators had a special investment in this “*bande sonore*,” or “*bande-son*,” – Thierry Chaput for the technical system that used infrared transmission and was specially developed for this occasion by the Philips company, and Jean-François Lyotard for the general idea and for the literary and philosophical texts that could be heard through this mobile headphone system, and that Lyotard edited together with Dolorès Rogozinski.⁴

2 – As yet, this photo documentation is without publically available metadata: http://archivesetdocumentation.centrepompidou.fr/img-viewer/BK/cci/cci_147_0141/viewer.html [accessed 6 March 2020].

3 – One of my own, broader research questions with regard to *Les Immatériaux* is how much of the concept and the content of the exhibition was already in place when Lyotard joined as chief curator in the summer of 1983, when the project’s preparations had already been underway for approximately two years. With regard to the sound-related projects in the show it is interesting to relate that Hudek writes about the cooperation of the leading Centre de Création Industrielle, cci, with other departments of the Centre Pompidou, claiming that “an exhibition project on music videos initiated by the Musée National d’Art Moderne was incorporated into *Les Immatériaux*, and another project on electro-acoustic music developed by IRCAM (Institut de Recherche et de Coordination Acoustique/ Musique) also seems to have merged with the 1985 exhibition.” (Hudek 2008/2015, p. 73) The archival sources referenced by Hudek, i.e. “the ‘Projet d’exposition’, dated 10 January 1983, and the ‘Compte-rendu de la réunion du 16 Mai 1983’ (PCA 1977001/129 and 94033/236)” (ibid., fn. 8), indicate that both projects (for the sites *corps chanté* and *sons et voix*) were already conceived before the first contact with Lyotard at the end of May 1983. Thierry Chaput’s concept of 10 April 1983 makes reference to an area in

the planned exhibition dedicated to “*nouveaux sons*,” the respective chapter in the concept text, “*La musique, le son*,” references environmental sounds, sound synthesis, and popular music, it envisages a series of concerts as well as exhibits, and highlights a possible cooperation with IRCAM on the former, as well as on “*une expérience de composition musicale interactive*” in the metro.

4 – For the editorial process, see D. Lyotard 2019 (at <http://les-immateriaux.net/working-papers/> [accessed 6 March 2020]). For general descriptions of the *bande-son*, see Wunderlich 2008, p. 49-51, 83-84, Gallo 2008, p. 70-73, and Hudek 2009/2015, p. 75-76. In an internal document of spring 1984, Lyotard speaks about the headphones and the *bande-son* (at that point in time yet conceived as “instructions” to prevent visitors from having to read texts), picking up the notion of the voice and orality that he had mentioned earlier in the same discourse, and reflecting on the experience of moving between the sound zones (Lyotard 1984/2015, p. 61-62). A related handwritten note by Lyotard, dated already 8 October 1983, is documented in the *Album* part of the catalogue (p. 22). For further comments on the soundtrack, see Anne Elisabeth Sejten 2015, p. 164-165, and the text by Charlie Gere, “The Silence of God” (2015, p. 203-213). In the catalogue part on the collaborative writing experiment, *Épreuves d’écriture*, there are no keyword sections on “sound” or “music,” but there is a section on the voice (“Voix,” p. 228-230, 258).

Significantly, when the visitors put on the headphones in the entrance area (*vestibule d'entrée*), they heard the sound of breathing, and then the pulsation of blood in the dark corridor of the *galerie d'entrée* that led them into the first main exhibition space, the *théâtre du non-corps*, where they heard the reading of a text by Samuel Beckett.⁵ The 60 sites of the exhibition were arranged into 26 separate audio zones, each with a different set of sounds and spoken texts. Reflecting on the scenographic design process, the exhibition's chief designer Philippe Délis emphasised the primacy of the *bande-son*; he described how the overall layout of the exhibition was conceived as a "... suite of places, without apparent links; organised by a set of questions, a spoken question, a soundtrack. It is the text-sound that delimits the spaces, exposes them, sketches them. It is the manifestation of the fluid space-time, where time takes precedence over space, where 'time engenders the surface.' ..."⁶ For Lyotard, it was important that the scenography of the exhibition would be determined temporarily, rather than spatially, and that in the reception the listening ear would be as important as the seeing eye.⁷ As a medium, the dispositive of the headphones and the soundtrack was intended, firstly, to isolate each individual visitor in an overall silent exhibition space, and secondly, to create the impression that occasionally the exhibits themselves were speaking and addressing the visitor through the *bande-son*.⁸

⁵ — See *Petit Journal*, p. 3, and Wunderlich 2008, p. 110-111 (*vestibule d'entrée*), p. 111-112 (*galerie d'entrée*), and p. 113-118 (*théâtre du non-corps*).

⁶ — Délis, in Théofilakis 1985, p. 24 ("... L' "écrit synoptique", reproduit sur une plaque surexposée qui perdrait ses contours, apparaît comme la topographie des sites mis en espace. Suite de lieux, sans liens apparents; regroupés par une interrogation, une question parlée, une bande-son. C'est le texte-son qui borne les espaces, les expose, les esquisse. Il est la manifestation de l'espace-temps fluide, où le temps prend le pas sur l'espace, où "le temps fait surface". C'est ce temps du déplacement qui marque la surface de l'espace, la relation espace/surface est maintenant de l'ordre de l'itinéraire.")

⁷ — See Lyotard 1984/2015, p. 62 ("Of course these same receivers could receive musical signals, whether these signals are mixed with text, or whether on the contrary there is an entirely musical zone, as IRCAM have suggested. Once more, the arts of time, oral speech and music, with all the intermediaries between the two, including noises, are much superior to reading.") — Other authors have held the exact opposite sound-theoretical opinion, claiming that sound serves to emphasise space over time (Dennis Smalley, Michel Chiron), suggesting that a more precise analysis would be required of what Lyotard hoped to achieve, and whether this actually worked for the visitors.

⁸ — See Lyotard 1984/2015, p. 62, 65.

Sites

Most of the exhibition sites showed objects and images that made no sounds of themselves; these sites were part of one of the 26 audio zones in which recordings of literary and philosophical texts were played to the visitors, depending on their position in the exhibition space. Most of these zones comprised several sites.⁹

In contrast, a small number of sites constituted singular zones with soundscapes that directly related to the exhibits:

- the site *corps chanté* showed a montage of music video clips of the early-1980s on three video monitors, providing an iconography of corporeal transformations as they featured on MTV and similar popular music television channels of the time; the soundtrack played the respective collage of excerpts from the music tracks;¹⁰
- in the site *matériau dématérialisé*, an overwhelming panoramic projection of slides and videos was accompanied by a soundscape of synthetic, electronic sounds, designed by Gérard Chiron and Arnaud Petit of the Centre Pompidou's Service Audiovisuel;¹¹
- the site *tous les bruits* presented, applied to a 17 metre long band of fabric, the multi-page score of a piece for piano, singer and dancer by Jean-Charles François, the soundtrack here playing the recording of a performance of the piece;¹²
- the site *musicien malgré lui* comprised an interactive sound installation by Rolf Gehlhaar; it invited the visitors to interactively create electronic sounds by moving around in the sensor-equipped space.¹³

In a large site at the end of the exhibition, *labyrinthe du langage*, the "labyrinth of language," the soundtrack played a long excerpt from Jorge Luis Borges' text about the *Library of Babel*. There were several projects in this diverse site that directly referenced issues of sound and voice, including:

- the spectrographic visualisation of the human voice (*trace de voix*);
- Frédéric Delvay and Frédéric Martin's video documentation of spoken word performances (*Les mots sont des objets*, 1984);¹⁴
- and the synthetically generated voices in Marc Denjean's generative computer animations (*Contes et chansons modulaires*).¹⁵

9 — See the booklet *Route: Zones & Sites* (Paris: Centre Pompidou, 1985) for the English translations of the texts for the audio zones, and Wunderlich's references to the relations between the audio zones and the different exhibition sites (2008, p. 107-250); see also D. Lyotard 2019; the texts in French are unpublished, the original manuscript can be found in the Public Archives of the Centre Georges Pompidou (Box 94033/666).

10 — Montage by Christophe Bargaues and Jean-Paul Fargier; see Wunderlich 2008, 132-134, zone 5; see also Marie Vicet, "Quelle place pour le clip vidéo au musée ? De sa reconnaissance muséale à sa remise en question, à travers trois expositions françaises (1985-2007)", *exPosition*, 2 octobre 2017, <http://www.revue-exposition.com/index.php/articles3/vicet-clip-video-musee-expositions-france> [accessed 6 March 2020].

11 — See Wunderlich 2008, 142-144, zone 8, site concept and visuals by Philippe Puicouyoul.

12 — Jean-Charles François: *Remarques Pertinentes sur les Crustacés Décapodes* (1982); see Wunderlich 2008, 160-163, zone 11.

13 — The sounds could be heard directly in the space, not through the headphones which visitors were asked to take off; see Wunderlich 2008, 187-190, and Gehlhaar's description in Hudek 2001, annex 6. Possibly, a remark by Lyotard from spring 1984 referred to this work: "Pierre Boulez envisaged a scenario where, through a simple photoelectric cell system, the very passage of a visitor would trigger a piece of electronic music" (1984/2015, p. 65).

14 — See <https://vimeo.com/16095986> [accessed 6 March 2020].

15 — Wunderlich's treatment of the *labyrinthe du langage* at the end of her book (p. 249) is unduly terse; at the moment, the *Inventaire* part of the catalogue provides the best overview over these projects.

Concert series, sons et voix

The third main component dedicated to sound in *Les Immatériaux* was a concert series that the Centre Pompidou's sound research institute IRCAM contributed to the cci's interdisciplinary project.¹⁶ The series was titled *sons et voix*, "sounds and voices," and included five different programmes that were presented between 5 March and 3 June 1985.¹⁷

- Luigi Nono: *Guai ai gelidi mostri* (1983)
- Karlheinz Stockhausen: *Kathinkas Gesang als Luzifers Requiem* (1983, prod. IRCAM), and *Oberlippentanz* (1983), *Aries* (1977), *Traum-Formel* (1981), *Der Kleine Harlekin* (1975)
- Steve Reich: *Mein Name ist... / My Name Is...* (1967)
- Gérard Grisey: *Les Chants de l'Amour* (1982-1984)

It is, at this moment, neither clear who put together this programme, nor which of the pieces were genuinely selected for the *Immatériaux* context, and which of them may have been on the agenda of IRCAM anyway and were added to the *Immatériaux* programme more accessorially.¹⁸ This may have been the case with two programmes presenting the laureates of the 12th International Competition of Electro-Acoustic Music in Bourges, 1984, on 22 and 23 April 1985; however, both these evenings were concluded with three pieces which were productions more closely related to IRCAM's electro-acoustic research:

- Marco Stroppa: *Traiettoria... deviata – Dialoghi* (1982-1984)
- Thomas Kessler: *Flute Control* (1984)
- Brian Ferneyhough: *Time and Motion Study II* (1973-1976)

The concert programme reflects two sets of interest that we also find in Chaput and Lyotard's conceptualisation of *Les Immatériaux*, namely a general interest in sound and electronics as an articulation of temporal phenomena, and a more specific interest in the relation of human and technics, articulated in pieces confronting the human voice with live electronic sounds and apparatuses.

16 – The main contact person between IRCAM and the curatorial team of *Les Immatériaux* was Nicholas Snowman, IRCAM's artistic director and close collaborator to IRCAM's founding director Pierre Boulez. On the institutional culture at IRCAM in the mid-1980s and its artistic practices in relation to computer technologies, see Georgina Born: *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde*. Berkeley: University of California Press, 1995. For the institutional history and context of *Les Immatériaux*, see Bernadette Dufrene: *Centre Pompidou, 30 ans d'histoire*. Paris: Centre Georges Pompidou, 2007, and Mackay 2015. See the website of the IRCAM Médiathèque for a series of video programmes, produced in 1983-1984, about the work of IRCAM, *Écouter votre siècle*, incl. interviews with Pierre Boulez, Nicholas Snowman, and others, documentations of studio productions by Karlheinz Stockhausen and George Lewis, and a feature about the 4x SOGITEC realtime synthesizer developed at IRCAM, <https://medias.ircam.fr/x1df121> [accessed 6 March 2020].

17 – There was a flyer that listed the programme of the different evenings, excluding the performance of Nono's *Guai ai gelidi mostri* (1983) that had taken place on 5 March 1985, the date originally envisaged for the exhibition opening that in the course of 1984 had to be postponed to 26 March (see the *Inventaire* catalogue, 1985, n.p., section *sons et voix*). Links to liner notes and excerpts of the live recordings in the IRCAM Médiathèque can be found at <https://medias.ircam.fr/search/?q=Immat%C3%A9riaux> [accessed 6 March 2020].

18 – This latter aspect is affirmed by a remark by art critic Pierre Gervasoni who states that, in this period of the mid 1980s, "Ircam ensured the distribution of works conceived in its studios, sometimes linking them to wider events, such as an exhibition (*Les Immatériaux* at the Centre Pompidou, which in May 1985 hosted the creation of *Kathinkas Gesang*, created by Stockhausen using the 4X [see fn 16])." Pierre Gervasoni: "La Politique artistique de l'IRCAM, de la recherche du nom à la stratégie de l'ouverture." In B. Dufrene 2007, p. 268-275, esp. p. 272.

The engagement with contemporary electro-acoustic research, as represented by the pieces of Nono, Stockhausen, Kessler, and others, corresponded with Lyotard's claim, a year earlier, that the exhibition should reflect the changing significance of time: "I think that we must use music as a guiding thread here, for reasons that are easy to understand, because it is an art of time, and it is therefore in music that, as if by accident, immaterials have developed most rapidly."¹⁹

Lyotard emphasised that movement and vibrations are the basis of electronic texts, as well as of music, and that the diachronicity of sound and music thus forms the model for understanding the temporality of the electronic media.²⁰

In contrast, the significance of the human voice, and the relationship between natural, synthetic, and digitally modified human voices, came to the fore most prominently in the last concert, with the pieces by Steve Reich (*Mein Name ist...*, [*My Name is...*] 1967) and Gérard Grisey (*Les chants de l'amour*, 1982-84), both of which dramatise the encounter of human and technics and, as the *Immatériaux* catalogue puts it, the tension "between sounds created artificially, without human gestures, and sounds/interventions produced directly by instruments and voices. Between these two universes there are continual transformations that turn materials into the immaterial."²¹

I would like to conclude by highlighting the exemplary status that sound had for *Les Immatériaux*, both as a general signifier of the volatile status of "immaterial," between technical hardware and audible waves, between body, voice, and language, and as a mode of experience that is time-based. For Lyotard, this prioritisation of the temporal over the spatial was a crucial task of a scenographic project that sought to articulate the postmodern condition.

¹⁹ — Lyotard 1984/2015, p. 38. Lyotard here also makes an unusually direct reference to a specific technical system that he no doubt was introduced to by Boulez and his team: "Machines that work on such timescales obviously make possible interactions in what we call 'real time'; this is the case, for example, with the Sogitec 4x machine invented at IRCAM, which allows a composer to intervene in the production of synthesised music as it is listened to." (Ibid.)

²⁰ — Ibid., p. 40. See also the text on music and computation by Pierre-Alain Jaffrennou: "Aujourd'hui l'offrande musical: les sons infinis." In Théofilakis 1985, p. 166-172.

²¹ — *Inventaire*, n.p., *sons et voix*: ("Quoi de plus immatériel que les sons produits sans que l'on

voit la façon dont ils sont fabriqués. Quoi de plus matériel que les machines et leurs managements, sources de ces sons. L'IRCAM présente quatre séries de concerts dont les oeuvres créent un contrepoint continu entre les sons créés artificiellement, sans gestes humains et les sons/interventions produits directement par les instruments et les voix. Entre ces deux univers, des transformations continues qui font des matériels, l'immatériel."). See also the description by Jeremy Grimshaw of Reich's *My Name is...*, at <https://www.allmusic.com/composition/my-name-is-for-3-or-more-tape-recorders-performers-audience-mc0002588571> [accessed 6 March 2020], and the liner notes by Grisey from April 1985, <http://brahms.ircam.fr/works/work/8962/> [accessed 6 March 2020].

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