Through Time and Space: Éliane Radigue's Relationship to Sound

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August 2022

A thesis submitted to McGill University in partial fulfilment of the requirements of the degree of Ph.D. in Musicology with Option in Gender and Women's Studies

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ABSTRACT

Composer Éliane Radigue is the only French composer of her generation who is regularly cited as a pioneer of synthesizer-based electronic music. Over the six decades of her (still ongoing) transnational career, Radigue has dedicated herself to the building of a radically original body of work in which natural microbeats between frequencies replace rhythmic, or other more traditional forms of, sound organization. A significant component of this dissertation consists in documenting the electronic phase of Radigue's career as well as her more recent collaborations with instrumentalists. The record of Radigue's life as a composer, however, is but one part of a larger argument that reconsiders canonical events in the history of contemporary music through Radigue's perspective. Taking her experience within the experimental music scene as a starting point, this dissertation investigates the way specific historical events are remembered and re-told, especially with respect to gender. Indeed, while she often went unmentioned in previous historical accounts, Radigue played an active role in many experimental music events around which a consensus has emerged regarding their artistic and historical importance (*musique concrète* in France in the 1950s and '60s, the 1970s American experimental music scene, and minimalism in general). Analyzing the history of contemporary music through the frame offered by Radigue's six-decade-long career offers many advantages. First, it is an opportunity to highlight the very different meanings that the notion of "composer" has taken on since the post-World War II era and, most importantly, it calls for an analysis of these conceptual shifts in terms of the gender conventions of the time. Radigue's career as an entry point offers a rich terrain to flesh out changing political, social and aesthetic meanings associated with the conceptual notion of the composer: how it is validated, and whom it includes and rejects. Second, Radigue's sound, and particularly the listening mode embedded within her compositional method, continues to open a space that enables different artistic approaches. This dissertation thus portrays Radigue in two interrelated ways: it takes her career as a lens through which to revisit knowledge claims surrounding specific events, terms, and concepts in music's history; and it positions her as an active agent in the experimental music scene. The research for this dissertation was conducted by using a multi-methodological framework combining historical, archival and ethnographic data, as well as input from the fields of sociology, critical theory and feminist theory.

RÉSUMÉ

Éliane Radigue est la seule compositrice française de sa génération qui puisse être citée comme pionnière de la musique électronique à base de synthétiseurs. Au cours des six décennies de sa carrière transnationale (toujours en cours), Radigue s'est consacrée à la construction d'un corpus d'œuvres radicalement original dans lequel les micro battements naturels entre les fréquences remplacent les rythmes ou d'autres formes plus traditionnelles d'organisation du son. Une composante essentielle de cette thèse consiste donc à documenter de manière approfondie la phase électronique de la carrière de Radigue, ainsi que ces plus récentes collaborations avec les instrumentistes. Cependant, ce portrait de la vie de Radigue en tant que compositrice s'insère dans un argument plus large qui consiste à revisiter les événements canoniques de l'histoire de la musique contemporaine à travers la perspective de la compositrice. En prenant l'expérience de Radigue au sein de la scène de la musique expérimentale comme point d'ancrage, cette thèse étudie la manière dont on se souvient de certains événements historiques, en particulier en ce qui concerne le genre. En effet, bien qu'elle ne soit souvent pas mentionnée, Radigue a joué un rôle actif et a fait partie de nombreux événements de musique expérimentale autour desquels un consensus a émergé quant à leur importance artistique et historique (la musique concrète en France dans les années 1950 et 1960, la scène de musique expérimentale américaine des années 1970 et le minimalisme en général). Analyser l'histoire de la musique contemporaine à travers la fenêtre épistémologique offerte par les six décennies de carrière de Radigue présente de nombreux avantages. Tout d'abord, c'est l'occasion de mettre en lumière les significations très différentes que la notion de « compositeur » a pu prendre depuis l'après-Seconde Guerre mondiale et, plus important encore, cela permet une analyse de ces changements conceptuels par rapport au genre. En somme, la carrière de Radigue comme point d'entrée offre un terrain riche pour étoffer les significations politiques, sociales et esthétiques changeantes associées à la notion conceptuelle de compositeur : comment elle est validée et qui elle rejette. Deuxièmement, le son de Radigue, et particulièrement le mode d'écoute intégré à sa méthode de composition, continue d'ouvrir un espace qui permet différentes approches artistiques. Cette thèse présente donc Radigue de deux manières interdépendantes : elle prend sa carrière comme une fenêtre à travers laquelle on peut revisiter les revendications de connaissances entourant des événements, des termes et des concepts spécifiques de l'histoire de la musique, et elle positionne Radigue comme un agent actif de la scène de la musique expérimentale. La recherche pour cette thèse a été menée en utilisant un cadre pluri-méthodologique combinant des données historiques, archivistiques et ethnographiques, ainsi que des apports des domaines de la sociologie, de la théorie critique et féministe.

ACKNOWLEDGEMENTS

My first thanks go to my advisor, David Brackett. Often, I would leave your office after what I had felt was a casual chat about life in general and things that matter to us (our families, good food, music, and quirky French and Québécois expressions). Some days later, I would sit at the computer to work, and realize that, amongst all our catching up chat, we had managed to weave in very intense reflections about things that, in general, revolve around meaning and power. In discussion with you, everyday life and profound intellectual thought inform each other, and make way for a balanced and humble approach to scholarship, and to being in the world in general. Thank you for being such a model of intellectual care, and for trusting me every step of the way.

To other indispensable mentors, and colleagues, in particular Lisa Barg; Will Straw and Bob Hasegawa at McGill University; Clément Canonne, Nicolas Donin, François-Xavier Féron of the APM team at IRCAM, thank you for being such inspiring and encouraging role models, and for your endless generosity and time. Special thanks to all members of the "Team David" and "Team Lisa" reading group who have been the greatest writing and reading buddies. My deep gratitude to Quatuor Bozzini members who have supported me in everyday possible way since the beginning of this incredible adventure; many thanks also to Frédéric Blondy and to all ONCEIM members who have had the kindness to help me out in understanding Radigue's music.

I would like to thank the Social Sciences and Humanities Research Council as well as the Fonds de Recherche du Québec for funding my masters and my doctoral research, as well as the Centre for Interdisciplinary Research in Music Media and Technology for supporting various stages of writing and research. Thanks to the Schulich School of Music at McGill, the Société Québécoise de la Recherche en Musique as well as the editorial board of *Circuit, musiques contemporaines* for supporting the dissemination of this project in the form of research, travel, and public musicology awards and opportunities. Special thanks, again, to Quatuor Bozzini for supporting my last research trip to Europe, and Edouard Bueno from the Monuments Nationaux whose diligence enabled the research documented in the last chapter of this dissertation.

Mille mercis à toute ma famille, proche et élargie. Nick et notre fils Emile; Marie-Lou, Maxime, et Victor; Yolande, Simon et toute la « famille » du Camp Musical de Lanaudière; Ady et Victor Diaz et mes amis: merci pour tout votre temps et votre amour. Avec vous, je peux vivre mes rêves.

Mes derniers remerciements, mais non les moindres, vont à Eliane Radigue, dont la générosité fut à la source de cette thèse. Merci très chère Eliane, pour toutes nos discussions, pour ton intelligence et ton amitié qui vont, tu le sais, bien au-delà de ce projet.

À mon fils, Emile, dont les 20 mois font résonner la maison alors même que j'écris ces lignes. Tu es l'amour de ma vie.

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INTRODUCTION

My dissertation project began with an interest in electronic music pioneer Éliane Radigue: her music, and her perspective on the different musical scenes in which she took part.

Éliane Radigue is the only French composer of her generation who can be cited as a pioneer of synthesizer-based electronic music. Over the six decades of her (still ongoing) transnational career, Radigue has been dedicated to the building of a radically original body of work in which natural microbeats between frequencies replace rhythmic, or other more traditional forms of, sound organization.

The composition of an electronic piece for Radigue—which, by and large, consists of recording and mixing sounds produced by a synthesizer on magnetic tape—is a meticulous process that can take up to three years of work. Despite this arguably slow pace, the twenty-nine pieces of Radigue's solo electronic corpus alone add up to more than twenty hours of music, making her one of the most prolific artists in the field.[1] An essential component of this dissertation thus consists in documenting Radigue's career material.

Yet, the record of Radigue's life as a composer in my dissertation project is but a side effect of a greater argument that consists in revisiting canonical events of

[1] See "Œuvres/effectif," Éliane Radigue, b.r.a.h.m.s., last modified Februray 3, 2020, http://brahms.ircam.fr/eliane-radigue#works_by_genre. From the late 1960s to 2001, apart from two exceptions, Radigue's pieces were created with electronic instruments. Since 2001, after nearly forty years of solo work (with electronic instruments), Radigue now collaborates exclusively with performers. While most of these collaborative pieces are played on acoustic instruments, many are still performed on various electronic instruments. This dissertation thus holds that the solo-to-collaborative switch in Radigue's creative practice is of greater importance than her new inclination towards acoustic instrumentation. Instrumental changes in Radigue's compositions are understood in light of, and as intimately intertwined with, the composer's new collaborative practices. For the purpose of clarity, Radigue's career will often be addressed in terms of "solo" or "collaborative" phases.

contemporary music's history through the composer's perspective. Taking Radigue's experience within the experimental music scene, this dissertation investigates the way specific historical events are remembered, especially with respect to gender.

Indeed, while often unmentioned, Radigue has played an active role in, and been part of, many experimental music events around which a consensus has emerged regarding their artistic and historical importance. In the mid 1950s, Radigue met *musique concrète* composer Pierre Schaeffer and, shortly after, served as his assistant at the Studio d'essai of the Radio Télédiffusion Française. There, she studied *musique concrète* techniques and promoted its aesthetic at conferences in Düsseldorf, Amsterdam, Darmstadt, and in the Nice region. From 1967 to 1968, after a 10-year hiatus dedicated to raising her children, Radigue assisted Pierre Henry at the APSOME studio, as well as for performances of Henry's famous *Messe de Liverpool* and *L'Apocalypse de Jean*. It is during this time that Radigue composed what she calls her "first sound propositions," amongst which we count *Jouet électronique* (1967), *Elemental I* (1968), and *Acromega* (1968).[2] The material of these early pieces consisted of feedback on tape, and their structure was organized by asynchronous magnetic tape loops. Radigue received very little recognition in France for these early pieces.

It is rather in the New York downtown experimental scene that Radigue found the esteem and encouragement of an artistic community.[3] She became close to important

[2] All works created at the APSOME studio. The dates indicated point to the creation of the works. *Acromega* was never premiered. *Jouet électronique* and *Elemental I* were premiered only in 2011 at the Triptych Festival in London during a retrospective of Radigue's œuvre. See "Éliane Radigue Œuvres/date," in *b.r.a.h.m.s.*, last modified Februray 3, 2020, http://brahms.ircam.fr/eliane-radigue#works_by_date and Julia Eckhardt, *Intermediary Spaces / Espaces intermédiaires*, (Bruxelles, umland editions, 2019).

[3] In a conversation with the author, Radigue expressed her feelings towards the welcoming attitude of many American composers: "France is still macho, still in many ways more macho than the United States or Canada. For me, it was a revelation when I arrived in the States, to meet musicians like James Tenney, Philip Corner, Phil Glass, Steve Reich, etc. And then, *bon*, *voilà*! We were equals! We were in a boat in

actors of the scene like composers James Tenney, Charlemagne Palestine, Malcom Goldstein, Philip Glass, Steve Reich, La Monte Young, Phill Niblock, Tom Johnson, Alvin Lucier and John Cage, amongst others.

In 1970, Tenney introduced Radigue to composer Morton Subotnick. Soon after, Radigue was appointed composer-in-residence for a year at the New York University School of the Arts where, at Subotnik's studio, she worked with the Buchla (100 series), one of the first modular synthesizers of the time.[4] Towards the end of this stay, Radigue experimented with the Moog, the Electrocomp (EML) and the Putney (EMS), until she finally came across the ARP 2500 synthesizer, which she bought and brought back with her to Paris.

Her early works for synthesizer attracted considerable attention in America and, in 1973, Radigue was invited as composer-in-residence at the electronic music studios of the California Institute of the Arts and at the University of Iowa. Radigue also premiered most of her electronic works in New York in venues like The Kitchen or Experimental Intermedia (aka her friend Phill Niblock's loft), a space now known as "pivotal […] in

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which we could get along very well. There was no masculine or feminine music anymore, or nothing like that." Éliane Radigue in conversation with the author, August 2016. Unless otherwise indicated, all translations in this dissertation are by the author.

[4] Although Radigue's "admission" as a composer in residence at NYU might, at first glance, seem like a drastic change from her non-institutional position in Europe, further inquiry highlights the actually non-institutional and quite casual status of this studio. About Subotnick's studio, scholar Bob Gluck writes: "The well-deserved prominence of [the Columbia-Princeton Electronic Music Center, founded in 1959] obscures a second, highly non-institutional studio loosely affiliated with New York University's School of the Arts […] The studio was established as composer Morton Subotnick's (b. 1933) personal workspace [providing] a nurturing environment for a cadre of important young composers." After having moved from San Francisco to New York in 1966, the founder of the San Francisco Tape Music Studio, in need of extra income, accepted a supplementary position as an Artists in Residence at NYU. The mostly informal arrangement granted Subotnick with the liberty to "compose as he wished in a studio of his own design." See Bob Gluck, "Nurturing Young Composers: Morton Subotnick's Late-1960s Studio in New York City," *Computer Music Journal* 36, no.1 (Spring 2012): 65.

the flowering of New York's Downtown new music scene, and home to some of the most innovative minimalist music in the late 20th century."[5]

Since 2001, after four decades of almost exclusive and solitary work with the ARP 2500, Éliane Radigue has been collaborating solely with performers, using an oral mode of music transmission based on a collaborative rather than on a traditional composer-performer hierarchical model.[6] To date, more than 70 instrumentalists from various backgrounds (experimental, electronic, classical, free improvisation, jazz, and avant-garde music) have collaborated with the composer. Over the last 20 years, this younger generation of performers has played Radigue's music in numerous music festivals, concert halls, lofts, art galleries, and museums around the world.

In more recent years, Radigue has received an increasing number of honours and tokens of appreciation, including tribute concerts, state awards for the entire body of her work (Président de la République Prize, Académie Charles Cros 2020; GIGA-HERTZ-PREIZ 2019; Ars Electronica Prize 2006), a complete CD boxed set of her synthesizer music (released by INA GRM), as well as citations of her piece *Jetsun Mila* in the high-budget movie *The Revenant*.[7] Apart from a few exceptions, all of Radigue's pieces—including those from both her "solo" and her collaborative phases—have been composed and created in the domestic space of her Parisian home studio.

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[5] Bernard Gendron, "Experimental Intermedia Foundation and the Downtown Music Scene," in *Phill Niblock: Working Title*, ed. Yvan Etienne, and Xavier Douroux (Dijon: Les presses du réel, 2013), 469–508. See also Tom Johnson, *The Voice of New Music New York City 1972 – 1982: A Collection of Articles Originally Published in The Village Voice* (Paris: Éditions 75, 1989), http://editions75.com/tvonm/.

[6] Luke Nickel "Occam Notions: Collaboration and the Performer's Perspective in Éliane Radigue's Occam Océan," *Tempo* 70, no. 275 (2016): 22–35. In this dissertation, the designations performer, musician and instrumentalist are used interchangeably and point to performances of both acoustic and electronic instruments.

[7] From a strictly financial point of view, it is only in very recent years that Radigue has been earning substantial income from her work, thereby affirming her status as a "professional" composer.

Analyzing the history of contemporary music through the epistemological window offered by Radigue's six-decade-long career offers many advantages. First, it is an opportunity to highlight the very different meanings that the notion of "composer" has taken since the post-World War II era and, most importantly, it calls for an analysis of these conceptual shifts in terms of gender conventions. Radigue's career as an entry point offers a rich terrain to flesh out changing political, social and aesthetic meanings associated with the conceptual notion of the composer: how it is validated, and who it rejects. Second, as will be portrayed in more detail in subsequent chapters, Radigue's sound, and particularly the listening mode embedded within her compositional method, continues to open a space that enables different artistic approaches. This dissertation thus portrays Radigue in two interrelated ways. Specifically, the first section of the dissertation (Part 1) takes her career as a lens through which to revisit knowledge claims surrounding specific events, terms, and concepts in music's history, and the second section (Part 2) positions her role as an active agent of the experimental music scene.

The research for this dissertation was conducted by using a multi-methodological framework combining historical, archival and ethnographic data, as well as input from the fields of sociology, critical and feminist theory. Radigue's perspective on the above-mentioned scenes and aesthetic movements (*musique concrète*, New York downtown new music scene, and minimalism) is largely represented in oral histories that I have collected through interviews. Yet, her viewpoint is sometimes only presented by "traces": by the mere fact that she attended an event. My analysis of the oral data is thus supplemented by archival material—photographs, program notes, advertisements—that witness Radigue's often unmentioned (yet active) role in certain music scenes.

Such use of archival and oral material enables my research to explore what is missing, yet nonetheless present, *within* the mainstream historical discourse. This epistemological outlook draws on sociologist Avery Gordon whose project follows the traces of history's forgotten people.[8] Gordon does not aim to articulate the past "the way it really was," but rather exposes how stories can be told differently, thereby destabilizing the linearity of knowledge claims produced around a given case study. In this way, Gordon avoids merely "saving" forgotten figures by rebuilding another "truer" history. The core argument of her proposed epistemology is that remodeling and retelling stories according to a non-hegemonic perspective exposes the tenuousness of dominant historical discourses.

Thus, by telling stories through Radigue's perspective, my project aims to articulate the socially constructed mechanisms that reinforce and validate the presence of certain actors in a given event, as well as the ways in which other actors are excluded. This dissertation proposes Éliane Radigue's experience as a means to shift the borders of the history of contemporary art music, and calls into question what counts as worthy of the field.

Given that one of the core arguments of this dissertation is that Éliane Radigue's career is a rare opportunity to re-examine important changes in the designation "composer," my project looks at well-known events in the history of contemporary art music that epitomize such conceptual shifts, and analyzes them in terms of how they are associated and transformed by gender conventions. In doing so, I seek to understand the

[8] Avery Gordon, *Ghostly Matters: Haunting and the Sociological Imagination* (Minneapolis: University of Minnesota Press, 2008).

persistent gender imbalance in the field of contemporary music composition in general, and in electronic music in particular.

Indeed, despite recent commendable attempts by scholars, performers, music educators, composers and feminists to "rescue" the unheard feminine voices of music's history or to fill the gender gap in educational departments, equity within academic compositional departments and in the electronic music scene still seems like a distant dream.[9] Speaking of electronic music more particularly, some scholars argue that this situation is in substantial measure due to its affiliations with science and technology, fields that have strong cultural associations with masculinity.[10] Although to a certain extent I do agree with these scholars, in my dissertation I am not interested in pointing out where or if a masculine connotation has been constructed.[11] Rather, I seek to pull out *how* meanings are constructed and, most importantly, how they reinforce and validate

[9] Georgina Born and Kyle Devine, "Music Technology, Gender, and Class: Digitization, Educational and Social Change in Britain," *Twentieth-Century Music* 12, no. 2 (2015): 135–72.
[10] Ruth Oldenziel, *Making Technology Masculine: Men, Women and Modern Machines in America, 1870-1945* (Amsterdam: Amsterdam University Press, 1999); Judy Wajcman, *Feminism Confronts Technology* (University Park, Pa.: Pennsylvania State University Press, 1991) and *Technofeminism* (Cambridge: Polity, 2004).
[11] To put things in perspective, technology and masculinity were not—and are still not—automatic nor exclusive equations. Writing about unfavourable links made between technologically mediated music and gender within the context of folk or country blues, David Brackett argues that "[t]he privileging of a type of folk authenticity of debased commercial musical products aligns with familiar associations between aesthetic prestige and gender. Here the authentic, virile tradition of folk (or country, as it is usually referred to) blues sung by men is placed at the point of historical origin, while the debased commercial (and technologically mediated) form of the blues sung by women is seen as derivative […]." *Categorizing Sound: Genre and Twentieth-Century Popular Music* (Oakland: University of California Press, 2016), 71. Likewise, Andreas Huyssen, focusing first on the late 19th century, observes how during that period the modernist language to describe "low" mass cultural production had been increasingly and obsessively gendered as feminine, such an ideological potpourri participating in further exclusion of women from the privileged space of high art. Tracing this argument throughout modernist literature, Huyssen notes that by the late 1920s, even though mass culture theories had by and large abandoned explicit gendered terms—emphasizing instead aspects of mass culture such as technological reproduction and *Sachlichkeit*—whiffs of the older mode of thinking are felt here and again in both language and argument. See Andreas Huyssen's "Mass Culture as Woman: Modernism's Other," in *After the Great Divide: Modernism, Mass Cuture, Postmodernism* (Bloomington: Indiana University Press, 1986), 44–64.

certain sounds, bodies and practices as being part of the contemporary music field.

Thus, an important point of departure of this dissertation is the assertion that the general lack of consideration regarding Radigue's career mirrors an ongoing situation where women's artistic contributions to music composition and to electronic music are downplayed. Moreover, it proposes that the reasons leading to gender inequity within the electronic music sphere partly have to do with how we still collectively conceive of the term "composer" in such a narrow way that only certain specific (male) voices can claim it as part of their identity.

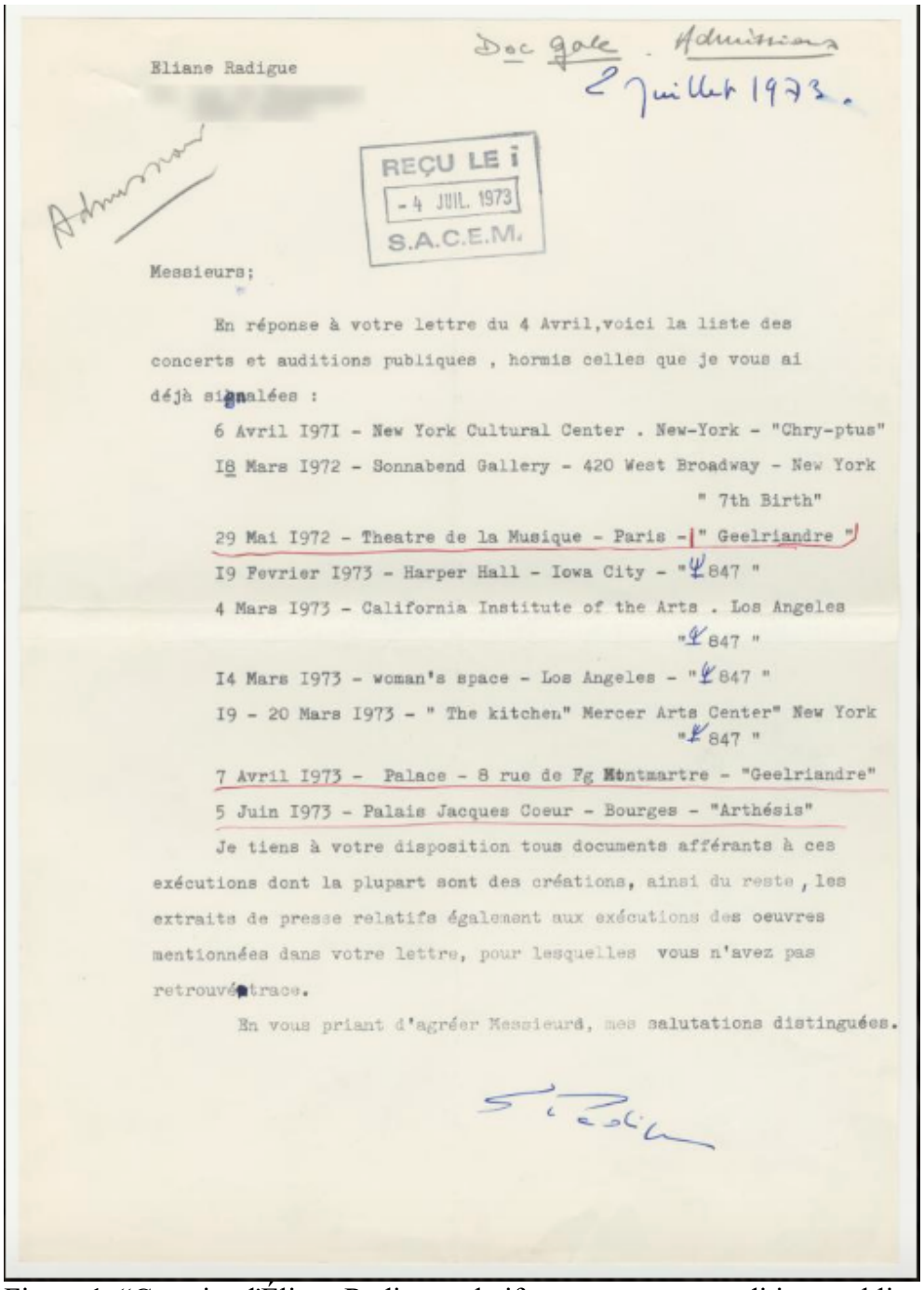
Yet, I also hold that adding female composers to the contemporary music discourse without changing what made them invisible in the first place does not necessarily make the field more inclusive.[12] Here, in addition to Avery Gordon's approach to knowledge, the overall analytical scope of this project draws on jazz scholars Sherrie Tucker and Nichole Rustin-Paschal who call for research that does not look *at* women, but rather *from* women's perspective. According to Tucker and Rustin-Paschal, looking *from* requires a reassessment of how we talk about the field as a whole; looking at the history of contemporary music from Radigue's point of view gives another window through which to understand the social constructions that perpetuate the underrepresentation of women in electronic music. Observing contemporary music culture through a gendered lens helps us "listen differently to areas […] that are otherwise too easily dismissed as outside."[13] By analyzing events through the perspective

[12] Nichole Rustin-Paschal and Sherrie Tucker, eds., *Big Ears: Listening for Gender in Jazz Studies* (Durham: Duke University Press, 2008).
[13] Nichole Rustin-Paschal and Sherrie Tucker, *Big Ears*, 2.

offered by Radigue's career, I propose to heighten awareness of the role of gender in the definition of the field in general, and of the composer appellation in particular.

Scholar Alison Young has put forth the notion of "cities within the city" to address how "different people using the same space [have] different or overlapping ways of understanding city living."[14] Likewise, this dissertation proposes to embrace different perspectives on a given matter. It illustrates how they co-exist and, more importantly, it strives to understand the power structures that have enabled one point of view to dominate others, and to analyze the mechanisms that may alternately value or overshadow certain types of actors in a given setting. For example, in France, Radigue has until very recently received almost no recognition as a composer, whereas her music has been substantially performed in the United States. As per the following figure and quoted interview, in certain spheres Radigue's work as a composer is recognized, while in others, it is not. For example, in a July 1973 letter to the SACEM [Society of Authors, Composers and Publishers of Music], Radigue listed the public concerts of her music and underlined in red the performances that took place in France [Figure 1]. Thus, between 1971 and 1973, Radigue performed her works in the U.S. roughly twice more often than in France.

[14] Alison Young, "Cities in the City: Street Art, Enchantment, and the Urban," *Commons, Law & Literature* 26, no. 2 (2014): 145–161.



Eliane Radigue

Doc gale . Admissions
2 Juillet 1973.

Admission

REÇU LE 1
- 4 JUIL. 1973
S.A.C.E.M.

Messieurs;

En réponse à votre lettre du 4 Avril, voici la liste des concerts et auditions publiques , hormis celles que je vous ai déjà signalées :

6 Avril 1971 - New York Cultural Center . New-York - "Chry-ptus"

18 Mars 1972 - Sonnabend Gallery - 420 West Broadway - New York " 7th Birth"

29 Mai 1972 - Theatre de la Musique - Paris - " Geelriandre "

19 Fevrier 1973 - Harper Hall - Iowa City - " ℔847 "

4 Mars 1973 - California Institute of the Arts . Los Angeles " ℔847 "

14 Mars 1973 - woman's space - Los Angeles - " ℔847 "

19 - 20 Mars 1973 - " The kitchen" Mercer Arts Center" New York " ℔847 "

7 Avril 1973 - Palace - 8 rue de Fg Montmartre - "Geelriandre"

5 Juin 1973 - Palais Jacques Coeur - Bourges - "Arthésis"

Je tiens à votre disposition tous documents afférants à ces exécutions dont la plupart sont des créations, ainsi du reste , les extraits de presse relatifs également aux exécutions des oeuvres mentionnées dans votre lettre, pour lesquelles vous n'avez pas retrouvé trace.

En vous priant d'agréer Messieurs, mes salutations distinguées.

S. Radigue

Figure 1. “Courrier d'Éliane Radigue relatif aux concerts et auditions publiques de ses œuvres.” July 2, 1973 (Date of the document). Document d'archives Sacem. © Fonds Sacem.

In a 1980 interview with composer Charles Amirkhanian, Radigue spoke of this disparity in recognition of her work in France and in the U.S.[15] Radigue shared with the composer not only the difficulties of having her work performed in her home country, but also the obstacles she encountered and had to overcome in order to have her compositions recognized as music:

> Charles Amirkhanian: I wonder if you have any of your music on records.
>
> Éliane Radigue: No, not yet, one day I hope!
>
> C. A.: I hope so, because for years people have been talking about your music here on the West Coast, and I think most of us here have felt an affinity toward what you've been doing. Perhaps more so than some of the east coast composers because of the nature of the work which is very […] meditation inducing, relaxing. It has a quality to it which is one that composers here have also been trying to attain and you've been doing [this] almost exclusively with electronic music, as opposed to instrumental [music] electric organs, or the various other means that have been used here. What is the situation in Paris for the performances of work like yours?
>
> É. R.: Oh very, very poor. Very poor. In fact, the music I make is not so much accepted in France. I had a few concerts, I was invited by Festival d'Automne, five or six years ago.[16] But the music I make is not so much welcomed, except by a few people, of course, who just like it. There is nothing in between: people like it or not at all.
>
> C. A.: Is the attitude of the musical establishment that your work is simple?
>
> É. R.: For the music establishment they think that I don't make music, that that's not music
>
> C. A.: Oooh! Still arguing about that, are we!
>
> É. R.: [Laughs] Yes, somehow. I have a few people to defend this like music. Recently I've met someone who had to defend my rights at the SACEM, you know this organism for composers, the equivalent of ASCAP. But he said that it

[15] Éliane Radigue, "Morning Concert," interview by Charles Amirkhanian, KPFA-FM, November 21, 1980, audio, 1:53:23, https://archive.org/details/MC_1980_12_11/MC_1980_12_11_A_ed.wav. Interview conducted in preparation of the premiere of Radigue's electronic piece *Adnos II* at Mills College.
[16] Musée Galliéra, Paris, for the Festival d'automne, November 10, 1974. Radigue premiered *Adnos I*, an 80-minute-long piece for ARP synthesizer recorded on magnetic tape.

> has been a real fight amongst composers, to make them accept it that I could be considered like someone making music, and not something out of very strange sounds![17]
>
> C.A.: Well in America you have to be accepted as part of BMI or ASCAP. If you don't fit in the definition which they feel is proper, you can very well be excluded and the upshot is that you cannot collect on a broadcast performance of your work and it's a way of excluding people it's a political means of… a musical style war. It's too bad that you have that kind of problem in Paris.

My dissertation will argue that Radigue's acceptance (and non-acceptance) in the world of music creation reveals how, in different music scenes, multiple, overlapping and often contradictory views of the composer co-exist. I ask, who can be a composer? What ought a composer's work to be? And, how is one to be remembered?

In terms of scholarship and documentation, notwithstanding her enormous artistic contribution, and the fact that she played an active part in different highly documented artistic movements, Radigue has, in comparison to many of her contemporaries, received very little attention.[18] In certain spheres Radigue's presence is acknowledged, in others not; in some she is a composer, in others not; in some her music is appreciated, in others it is not recognized as such.

This dissertation documents the different ways in which people reacted (and still react) to Radigue's sound, as well as to her mere presence as a woman within the

[17] Roughly ten years after her first piece, *Asymptome versatile* (1963) is composed, Radigue applied to SACEM, on January 12, 1973. She is admitted on October 3, 1973. See the SACEM archive online, accessed on June 13, 2022, https://musee.sacem.fr/index.php/Detail/entities/11971.

[18] Apart from collections of reflections and interviews published in music magazines and elsewhere (Bernard Girard, *Entretiens avec Éliane Radigue* (Chateau-Gontier: Éditions Aedam Musicae, 2013); Eckhardt, *Intermediary Spaces*, amongst others), scholarly work on Radigue is limited. To my knowledge, it includes Luke Nickel's "Occam Notions: Collaboration and the Performer's Perspective in Éliane Radigue's Occam Océan," *Tempo* 70, no. 275 (2016): 22–35; Groupe de recherches musicales, *Eliane Radigue*, (Paris: Institut national de l'audiovisuel-GRM, 2013), and a documentary film by director Anaïs Prosaïc, *Eliane Radigue : L'écoute Virtuose* , Huit Production. La Huit, 2011. DVD. Since February 2020, Radigue has her complete file on IRCAM'S b.r.a.h.m.s. data base.

contemporary or electronic music scene, thus tracing some of the shifting conceptual notions of the composer since the early 1950s. I follow Radigue from her assistantship with Pierre Henry, to her performances in New York, to her return to the hospitable atmosphere of her current Parisian apartment; and I sketch specific points of struggle or acceptance, of tension and openness.

As is expressed in the above quoted interview, Radigue's music was for the longest time stylistically confronted with score-based and post-serial ideals of musical complexity that were promoted by influential European institutions such as IRCAM and Darmstadt.[19] Moreover, in France's Post-war new music scene, it was more likely for women to be in the office then under the spotlights of the composer title.[20] This dissertation uses an approach that focusses both on the diversity of Radigue's identifications with the term, as well as on the different receptions that these identities were granted within given artistic communities throughout her career, and questions the presumed permanence of the conventional gendered (and stylistic) associations with the concept of the composer.

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[19] Georgina Born, *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde* (Berkeley: University of California Press, 1995)

[20] On the division of labour within French institutional systems such as IRCAM, see again Born, *Rationalizing Culture*. In a discussion with me, composer and electroacoustic improviser Jérôme Noetinger commented on this rejection and dismissal of American experimentalism by influential actors of the French Post-War new music scene. He namely compared institution-heavy France to America and, speaking about Éliane Radigue's early reception in her native country, highlighted gender conventions as well as aesthetic tensions: "Éliane is a woman, and in that environment it wasn't easy. Women were at the office and when women were musicians, they were assistants. […] Also in Europe everything was related to this post-serial writing, the whole Darmstadt school, etc. A composer like Alvin Lucier has never really been recognized as such in Europe, because we have always thought it was too simple. He has an idea, and he applies it. We [Europeans] find it almost like some kind of scam. Even Cage; Cage has always been taken like a clown. There are very few people in Europe who know Cage's music seriously. It's a problem of perspective; a problem of experience, of listening. I believe that complexity is there [in Cage's music][…] It's the writing thing, you know, it's a big academic thing." Interview with author, December 2019.

Additionally, I argue that Radigue's approach not only highlights the mechanisms through which gendered notions conglomerating around the composer designation have been constructed, but also continues to offer alternative ways of identifying with the term, as well as a different perspective on the related concepts of the musical score, virtuosity, listening, and performance practice. Thus, from a larger perspective, this dissertation holds that Radigue's work answers the feminist call to "engage in the production of new and progressive epistemic norms."[21]

The composer's current collaboration with experimental music ensembles enables one to examine how this operates. Through ethnographic studies and fieldwork, I document how instrumentalists react and adapt to Radigue's oral mode of musical transmission and deeply collaborative compositional model. By emphasizing the epistemological implications of her relationship to sound, this research project offers Radigue's perceived difference as a fruitful challenge to the assumed stable status of the concepts associated with contemporary electronic music composition.

In sum, my dissertation project on Éliane Radigue seeks to decentralize assumed knowledge claims presented in the contemporary or experimental music field. In doing so, I do not wish to replace pre-existing truths, but rather show how different stories can overlap and co-exist. My project asserts that this epistemological proposition is politically proactive. In adopting a framework that allows for the co-presence of different realities, or truth claims, this research project has the potential to uncover the mechanisms that facilitated the erasure of certain actors from the canon of contemporary music and, somewhat consequently, from the contemporary music field altogether.

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[21] Alessandra Tanesini, "Whose Language?," in *Knowing the Difference,* eds. Kathleen Lennon, and Margaret Whitford (London: Routledge, 1994), 203–216.

As Eve Sedgwick has argued, uncovering power structures is not politically performative in and of itself.[22] Yet, my dissertation holds that an acute consciousness of these often-tacit power structures does, at the least, make it harder to reinforce an imaginary, all-imposing norm. Moreover, as expressed by Sherrie Tucker, understanding a given event from an alternative perspective necessitates a reshaping of the field where different stories also have the potential to be considered in all their complexity.[23]

1. ETHNOGRAPHIC APPROACH

Studies in feminist ethnomusicology also inform my work on Éliane Radigue. Since my research seeks to recount musical events through a different perspective, as a scholar I am always at risk of imposing my own generational and North American assumptions about difference. As pioneer feminist ethnomusicologist Helen Koskoff argues, fieldwork often works as an antidote to this important problem. I agree with Koskoff that when a scholar is put face to face with whomever she is studying, abstract theoretical ideas or assumptions are inevitably confronted, refined, and made more complex.[24] Although the statements of interviewees need not always be taken at face value, it is more difficult to come to the ethnographic field and simply apply one's preconceptions of what is, at a certain point in time, considered dominant or different.

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[22]Eve Sedgwick, "Paranoid Reading and Reparative Reading, or, You're So Paranoid, You Probably Think This Essay Is About You," in *Touching Feeling: Affect, Pedagogy, Performativity*, eds, Eve Kosofsky, and Adam Frank (Durham: Duke University Press, 2003), 123–151.

[23] Sherrie Tucker, "A Conundrum is a Woman-in-Jazz: Enduring Improvisations on the Categorical Exclusions of Being Included," in *Gender and identity in Jazz*, ed. Wolfram Knauer (Hofheim: Wolke Verlag, 2016), 241–262.

[24] Ellen Koskoff, *A Feminist Ethnomusicology: Writings on Music and Gender* (Champaign: University of Illinois Press, 2014).

One example taken from my interviews with Radigue is sufficient to illustrate the contrast between my own perspective on the attitude of a woman composer and Éliane Radigue's. While in retrospect the early 1970s are known as the beginning of Radigue's active years as a composer, for the longest time she preferred to speak about her works as "sound propositions," and resisted calling them compositions or even music.[25]

At first glance, such a qualification seems in line with the "sound installations" that were starting to pop up here and there in the 1960s. Yet, Radigue's reluctance to calling her works music derived from a particular motivation. She did not refrain from giving her pieces the "composition" label to challenge art music standards of composition, or to actively provoke new ways of understanding what is worthy of the "music" appellation. As a Parisian divorced middle-class woman in her late thirties and a mother of three, Radigue did not consider herself to be a composer: she had never imagined herself in that position. Radigue did not—at least in these early years—think of her musical activities professionally or in terms of a career.

Indeed, since the early 1950s she had mostly devoted her time to raising her children in Nice. After her divorce in the late 1960s she received allowances from Arman, the father of her children, to live and raise the family.[26] As for previous recognition in the field, although she had been Pierre Schaeffer's volunteer assistant for a few years, splicing and organizing bits of magnetic tape, Radigue had never been to music school to study composition. My interview with Radigue exemplifies how

[25] While Radigue has been composing her own music as early as 1963 (*Asymptote versatile*), most of these early pieces were only performed in the early 2000s. Radigue only started to perform her music more substantially (and gradually started to consider herself a composer) in the early-1970s. See See "Éliane Radigue oeuvres-dates," base de documentation sur la musique contemporaine b.r.a.h.m.s, last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#works_by_date.
[26] Girard, *Entretiens*, 45.

ethnography can work as an antidote. During my meetings with her, my focus shifted away from my conception of her as a pioneer woman composer—that is, perhaps of the militant fashion, fighting overtly for her rights—to a willingness to understand Radigue's own take on the matter.[27]

My ethnographic fieldwork used for this dissertation extends to Radigue's current work with performers, most particularly with the Montreal-based Quatuor Bozzini, as well as to members of the Parisian ONCEIM ensemble [Orchestra of New Creations, Experimentations, and Improvisations]. As briefly mentioned, Radigue uses an oral mode of musical transmission, bypassing the intermediary of the score which, due to her background in electronic music, "is how Radigue has always worked."[28]

In my dissertation, I ask the following questions: what does it sound like when an instrumental ensemble collaborates with a former "solo" electronic music composer, and, what is more, with a former electronic music composer whose collaborative pieces—from a sonic perspective—are highly similar to her previous pieces for synthesizer? How does collective decision-making take place while performing a Radigue piece? In the absence of a physical score, how does the Quatuor Bozzini and the ONCEIM ensemble rehearse a Radigue piece?

Actor Network Theory also informs my ethnographic study of the Quatuor Bozzini and of the OCEIM ensemble, and helps me address the above stated questions. Described as a methodology rather than a theory by Benjamin Piekut,[29] ANT is useful

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[27] This type of ethnographic work also helps address certain notions raised by Saba Mahmood, principally, to be aware of the overshadowing consequences of parachuting an unquestioned ideal of (progressive, Western) feminism to all situations. See her essay "Feminist Theory, Embodiment, and the Docile Agent: Some Reflections on the Egyptian Islamic Revival," *Cultural Anthropology* 16 (2001): 202–236.
[28] *Portrait polychrome d'Eliane Radigue*, 65.
[29] Benjamin Piekut, "Actor-Networks in Music History: Clarifications and Critiques," *Twentieth-Century Music* 11, no. 2 (2014): 191–215.

when analyzing decision-making in a given setting: how "one privileged trajectory is built, out of an indefinite number of possibilities."[30] In my ethnographic study of Radigue's collaboration with instrumentalists, I explore the discursive and material networks of Radigue's instrumental music, as well as some of the power structures intrinsic to these networks. It is mostly in this sense that my ethnographic work applies ANT methodology.

In the words of scholars Madeleine Akrich and Bruno Latour, the semiotics (or the study of how meaning is built) in ANT pays attention to "order building or path building," which can be applied to "settings, machines, bodies, and programming languages as well as texts."[31] In my dissertation, I thus focus on moments where the ensembles share—in sound or in words—how they react to the new or somewhat foreign setup proposed by Radigue's approach, and trace how one decision is taken, out of all the other possibilities at hand. To do so, I zoom in on moments of instability, where instrumentalists share doubts about how to translate Radigue's electronically based music to acoustic instruments and musicians, for example.[32] During the sessions I observed, sound is usually produced through trial-and-error, where the instrumentalists adapt and adjust their *jeu* according to Radigue's comments and advice. Yet, while discussions between Éliane Radigue and the members of the ensembles have an impact on the sound produced, so do other non-human elements such as space, instruments, and other more

[30] Madeleine Akrich, and Bruno Latour, "A Summary of a Convenient Vocabulary for the Semiotics of Human and Nonhuman Assemblies," in *Shaping Technology/Building Society: Studies in Sociotechnical Change,* eds.Wiebe E. Bijker and John Law (Cambridge: MIT Press, 1992), 259.
[31]Akrich, and Latour, "A Summary of a Convenient Vocabulary," 260.
[32] As argued by Latour and Madeleine Akrich, description is perhaps only possible if some extraordinary event—a crisis—modifies or arrests the course of path building. To give a mechanical analogy, the description is reverse engineering: it is the "opposite movement of the inscription by the inventor," See Madeleine Akrich, and Bruno Latour, "A Summary of a Convenient Vocabulary," 259.

abstract concepts such as virtuosity, the societal positioning of the Quartuor Bozzini or the ONCEIM members—all elements that Latour calls actors. The ethnographic part of my project is thus an attempt to describe "what the various actors [in the given setting] are doing to one another," and how they participate in influencing the ways in which sound is produced.[33]

My goal in using ANT is to study the links that bind all the heterogeneous and ever-changing parts of the setting in which the actors take action. [34] For example, how will the instrumentalists' virtuosity—which has been trained and developed in different institutions, in previous encounters with other instrumentalists, through the ensemble's various stage and performance experiences, in intimate relationship with their instruments—play in the moulding of a Radigue sound, one that has evolved over almost half a century in the domestic space of her apartment, hand in hand with a modular synthesizer? Between all these elements, a certain adaptation is forced through encounter, a certain "game" of modification. It is this game that I will investigate and describe in the ethnographic part of my project.

Moreover, ANT encourages research where the actors are "followed," thus eschewing any kind of rushed or unnecessary conclusion from the researcher's behalf. To paraphrase Latour, in an ANT methodology, it is useless to "get bogged down concentrating on the final phase."[35] Applying ANT within an ethnographic setting helps

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[33] Madeleine Akrich, and Bruno Latour, "A Summary of a Convenient Vocabulary," 259.
[34] During the Bozzini-Radigue and the ONCEIM-Radigue sessions that I document in my dissertation, each of these "actors" are part of and form what Michel Foucault calls a "resolutely heterogeneous ensemble" which includes, but is not constrained to, discourses, institutions, technological transformations, philosophical and aesthetic propositions, "*du dit, aussi bien que du non-dit*." See Michel Foucault, *Le jeu de Michel Foucault* (Paris: Gallimard, 1994).
[35] Bruno Latour, *Aramis, Or, the Love of Technology* (Cambridge, Mass.: Harvard University Press, 1996), 10.

me avoid the pitfalls mentioned previously in this section, and which include imposing my own conclusions on a given setting.

2. THEORETICAL BACKGROUND

In addition to the theoretical approaches discussed previously, such as those associated with Latour, Tucker, Rustin-Paschal, and Gordon, several other theories have helped structure my approach to knowledge within this research project. Foremost among these are the theories of Michel Foucault, whose outlook on history has deeply influenced my own. More recent theorists also participated in organizing the epistemological approach that I follow in my project. Yet, perhaps since I was introduced to critical theory through Foucault's writing, his ideas function as an important cornerstone in the way I think about research. For the sake of clarity, I believe it is therefore relevant to highlight some of the key positions put forth by Foucault that have had an impact on the way I think about my project in general, and about critical theory in particular.

In the *Archaeology of Knowledge*, Foucault argues that truth claims about reality are created and enabled within a certain set of systematic and institutionalized rules, and that these rules dictate how certain truth claims overpower others.[36] The "archaeologist" investigates what it is that endows certain speakers to be taken seriously (enunciative function), as well as the relationship between the rules that create these serious enunciations and other serious enunciations (enunciative network).[37] In this sense,

[36] Michel Foucault, *The Archaeology of Knowledge; And, the Discourse on Language* (World of Man. New York: Pantheon Books, 1972).

[37] I believe it is adequate here to speak of "serious enunciation." When trying to show how the 'énoncé' is *not* a speech act, Foucault seems to divorce the énoncé from the everyday context within which it is uttered. He seems to argue for a macro set of rules underlying meaning formation, rather than for a system where meaning formation grows out of human activity. I understand this as meaning that a given set of "rules," a given ensemble of discursive formation constraints, makes it possible to say or even to think at a certain

discursive practices for the archaeologist become tools for analysis, and give the archaeologist the means to awaken discourse from its "anthropological sleep." [38]

Foucault's archeological stance has proved useful not only in the analysis of historical events in which Radigue has partaken, but also in assimilating other theoretical approaches used to frame this research project. For instance, feminist theories in music, while highly diverse from their inception, do join in a common effort to destabilize analyses of Western art music that have, for the past 200 years or so, concentrated their energies increasingly on structural issues.[39] Questioning musicology's appeal to the concept of autonomy, feminist scholars propose to read music in different cultural or historical contexts as a gendered discursive practice.[40] The question of how to understand music as a gendered discourse has given rise to lively and productive scholarly debates.[41]

A key theme in these discussions is the theoretical notion of difference. Important questions are addressed, namely on the matter of approaching difference without (still) reinforcing a tacit norm. As Sherrie Tucker has pointed out, how can one speak of "women in music" without conjuring up the idea that women's music exists in a sphere separate from men's music, or that men's music is simply music whereas women's music is something else?[42] Or, as sociologist Avery Gordon has asked, how can one speak of "forgotten" people without conflating their identities with their marginalized position?

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point in time. This is highly relevant to my dissertation project, and enables me to address, for instance, why Radigue, at age 37, could not even fathom being a composer.

[38] Hubert L. Dreyfus, Paul Rabinow, and Michel Foucault, *Michel Foucault, Beyond Structuralism and Hermeneutics* (London: Routledge, 2016), 44.

[39] Ruth Solie, "What do Feminists Want? A Reply to Pieter van den Toorn," *Journal of Musicology* 9 (1991): 399–410.

[40] See, for instance Susan McClary, *Feminine Endings: Music, Gender, and Sexuality* (Minneapolis: University of Minnesota Press, 2002); Ellen Koskoff, *A Feminist Ethnomusicology*, amongst many others.

[41] See Ruth Solie, ed., *Musicology and Difference: Gender and Sexuality in Music Scholarship* (Berkeley: University of California Press, 1993).

[42] Sherrie Tucker, "A Women Is a Conundrum."

How can one grant them the right to complex personhood?[43] These concerns are crucial to my research on Radigue's career. Following the aforementioned scholars, my dissertation project stresses the importance of paying attention to the way social life and culture construct and validate intelligible differences at different points in time.

The intellectual benefits of this approach are exemplified in Tammy L. Kernodle's "Black Women Working Together," where Kernodle vividly exposes the value of paying acute attention to mechanisms of differentiation.[44] Her analysis of Marylou Williams and Melba Liston's collaboration could never have been adequately addressed in narratives that limit themselves either to the two women's exclusion from the jam session, or to their stance as "exceptional" women. By acknowledging *how* Liston and Williams appear as different in certain contexts, Kernodle is capable of illustrating the labour and creative modes of resistance that underlie the two women's artistic careers. Kernodle is able to speak about these two black women musicians in complex ways.

In this dissertation, I take Kernodle's approach and apply it to specific events in Radigue's career. By detaching my research from hegemonic narratives of the exceptional woman (exceptionally oppressed, or successful), I tell a story of Radigue that does not limit itself to an opposition to, or a comparison with, a given norm. Radigue's aesthetic gravitational centre has developed against and around an array of factors that do not appear in a normative narrative.

For example, as will be illustrated in the subsequent section of this chapter, the accepted story built around experimental composers is one that highlights their "rejection

[43] Avery Gordon, *Ghostly Matters*.
[44] Tammy L Kernodle, "Black Women Working Together: Jazz, Gender, and the Politics of Validation," *Black Music Research Journal* 34, no. 1 (2014): 27–55.

of musical institutions and institutionalized musical values."[45] How can the notion of rejection apply to Radigue, an experimental composer who, on the basis of gender notably, was herself confined outside the walls of these very institutions? While the accepted definition of the experimental composer is successful in describing many composers' attitudes and describing their aesthetic drive, it simultaneously erases Radigue's labour.

Moreover, and perhaps closer to Kernodle's analysis of Williams's and Liston's culture engagement and modes of socialization, an important thread of this dissertation portrays Radigue as part of a community. In doing so, I wish to gear away from stereotypical narratives that permeate popular and scholarly understandings of how women electronic music composers engage (or do not engage) with one another and with a larger artistic community.

Women composers in general, and women electronic music composers more specifically, are often framed as lonely characters that work on the outskirts of a given artistic movement. Scholar Tara Rodgers speaks of a field where female electronic composers often feel as if they "had landed on a planet where something had happened to make all women disappear."[46] Concerning Radigue more specifically, a classification of her work and persona as an outsider often seems to be asserting itself.[47] Indeed, the arguments for such a position are bountiful. As an essentially self-taught composer,

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[45] Grove Music Online, s.v. "Experimental Music," by Cecilia Sun, accessed March 16, 2020, https://doi.org/10.1093/gmo/9781561592630.article.A2224296; Michael Nyman, *Experimental Music: Cage and Beyond* (Cambridge: Cambridge University Press, 1999).
[46] Tara Rodgers, *Pink Noises: Women on Electronic Music and Sound* (Durham: Duke University Press, 2010), 2.
[47] For instance, Tom Johnson, writing for the *Village Voice* in 1982, published a column entitled "On the Fringe of Paris: Pierre Marietan, Eliane Radigue, Horacio Vaggione." See Tom Johnson, *The Voice of New Music*.

Radigue nevertheless followed her course among (and often around) various male-dominated spheres and institutional hierarchies.

While this type of reading has proven beneficial in pointing out important mechanisms through which women are excluded from the electronic music scene, in this dissertation I argue that it simultaneously risks erasing these women's own take on their career. For example, despite her marginalization, for Radigue there is nothing more central than her six-decade-long "sound quest."[48] From Radigue's point of view, her career is perhaps more stubborn than marginal.

Another unfortunate upshot of the "excluded" depiction of female electronic music composers is that complex modes of engagement that tie together different actors of the scene are often flattened. Female composers such as Radigue were undeniably excluded from certain spheres, and yet they also found ways to reach out to more welcoming communities and safe spaces to share their art. Even early on in her career, a close examination of Radigue's activities reveals strategies that enabled the composer to build a (transnational) community around her musical praxis.

For example, Radigue's trips to New York and the American West Coast gave rise to close artistic collaborations with composers Maggi Payne and Pauline Oliveros; percussionist William Winant, as well as the Advanced Vocal Ensemble of Elizabeth Eshleman.[49] Composer Robert Ashley counts as one of Radigue's close artistic

[48] Radigue in discussion with the author, October 2019.
[49] Radigue, Oliveros, Payne and Sonami collaborated on *Labyrinthe Sonore*, an open work for six continuously sounding sources, presented throughout a physical path. First conceptualized by Radigue in 1970 for the Osaka Expo 70, the piece could not be performed in its complete version due to the technical limitations of the time. One section remains from this first trial, *Stress Osaka*, a one-track piece composed of feedback on tape. It is only in 1998, during Radigue's guest stay at Mills College, that the piece was realized in its entirety.

collaborators,[50] and as briefly mentioned, composer Phill Niblock and the Experimental Intermedia Foundation provided Radigue with a regular venue to perform her works. In 2011, in a manuscript letter, Radigue shared:

> From almost its creation in the seventies, I've given almost all the 'premieres' of my works at Phill Niblock's space. . . . It was a pleasure to test [my compositions] on the nice installation of Phill's and outside of my small studio in Paris. Nice also to have friends around, and I'm very grateful to Phill for his fidelity which is merely at least equal to mine.
> Experimental Intermedia was, at that time and I guess is still, one of the few places where this kind of music could be given to be listened to. Good luck and best wishes. [51]

This small sample of Radigue's relationship with fellow electronic and experimental composers—male and female—points to the complex and layered ways in which female composers have engaged in community building. Women composers such as Radigue have been excluded, and their music has been rejected by certain institutions, musicians, composers or critics. Yet, this seemingly overarching rejection tells only part of the story.

First, women composers are and were rejected for different reasons and to different extents, depending on class, age, race and sexual orientation, amongst other factors. Second, the communities they reached out to, and the complex ways in which they engaged in artistic relationships proved to be accordingly varied and specific. This dissertation thus thrives to highlight the plethora of skills that were developed by female composers such as Radigue through community building.

Moreover, by giving space to communities in Radigue's career, this project moves away from the "salvation" narrative. Radigue (and other female composers) do not need

[50] Robert Ashley recorded the English voice for Radigue's *Chants de Milarepa* (1983), a piece for synthesizer and voice. Lama Kunga Rinpoché recorded the voice in Tibetan.
[51] DRAM Online, liner notes for "Concerts by composers: Eliane Radigue" (2011), Accessed March 18, 2020. http://www.dramonline.org/albums/concerts-by-composers-eliane-radigue/notes.

to be "rescued," either from historical silence or from institutional or social rejection. Rather, by showing how Radigue collaborated with other composers, this dissertation exposes the modes of resistance and the skills that enabled her to "navigate political, social, and economic spheres; and [form] "safe spaces" that have supported [her] process of brokering power."[52]

In light of these epistemological and theoretical considerations, the goal of this first chapter is to map out commonly accepted debates about, and changes in, the history of contemporary art music since the Post-War era. Specifically, this present chapter aims to recast these debates by highlighting how much *has* changed for composers in addition to issues related to gender inequity. A brief overview of some of the key arguments suffices to portray the implications of certain shifts in the art music scene, and raises important question as to why, despite all the other changes, gender equity still drags its feet.

3. VIEWS OF THE COMPOSER

3.1 Style

A prominent feature of the post-1945 contemporary Western art music scene has been the debates regarding the role of the composer and the essence of music. Be it in more scholarly publications (often authored by composers themselves), or in the now famous correspondence between John Cage and Pierre Boulez, the tension between the ideological positioning of the avant-garde and the experimental music composer has occupied an important place in discourse about contemporary art music.[53]

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[52] Tammy L Kernodle, "Black Women Working Together," 28.

[53] Pierre Boulez, John Cage, and Jean-Jacques Nattiez, *The Boulez-Cage Correspondence* (Cambridge England: Cambridge University Press, 1993). One also thinks, amongst other more scholarly literature, of composer Michael Nyman's book, *Experimental Music: Cage and Beyond*, an influent publication that explicitly describes experimental and avant-garde music in opposed terms.

Key themes raised include the level at which contemporary Western art music defies previous compositional traditions in terms of processes, notation, and the hierarchical relationship between the score and its performance. Cage's now well-known use of the *I Ching* to answer questions about the articulation of his material in *Music of Changes*, as well as Pierre Boulez' integral serialism or Karlheinz Stockhausen's *Elektronischemusik* figure amongst canonical poles of the debate. Depending on the publication, composers of Western art music often wear either one of two different hats: that of the experimental music composer (as championed by Cage himself[54]) or that of the contemporary avant-garde composer.

In his influential book on the state of experimental and avant-garde music, Michael Nyman even proposes a set of purely musical considerations to differentiate the two musical streams.[55] In his view, experimentalism's fluidity of processes, its placement of performance over writing, and its use of notation to represent a set of actions (rather than a succession of sounds) sets it off from the avant-garde's reliance on traditional art music hierarchies. Nyman reads experimentalists' use of chance procedures, graphic scores, and written instructions in direct opposition to both the Western art music tradition and, by the same token, to the vanguards' reliance on traditional musical notation and its valorization of total control through notational complexity.[56] David

[54] Apart from the above-mentioned correspondence with Pierre Boulez, Cage had been discussing possible definitions of the experimental composer with fellow American colleagues as early as the 1950s. Extensive correspondence between Cage, composer John Edmunds (1913 – 1986), and critic-impresario Peter Yates (1909-1976) document what is considered the first effort to create a comprehensive recorded archive of American music. According to scholar Amy C. Beal, this never realized project triggered strong opinions about the "expansion, survival, definition, preservation, and canonization of an "American experimental tradition." See Amy C. Beal, "'Experimentalists and Independents Are Favored': John Edmunds in Conversation with Peter Yates and John Cage, 1959–61," *Second Series* 64, no. 4 (June 2008): 659–687.
[55] See Nyman, *Experimental Music*, 2.
[56] Celia Sun, "Experimental Music"; Nyman, *Experimental Music*.

Nicholls somewhat echoes Nyman in stating that while experimentalists stylistically break with Western art music traditions, avant-garde composers work within this tradition, albeit on its fringes.[57] For a vanguard composer, the musical object is still considered as static, notation is regarded as a representation of sound, and writing is considered above performance.

Yet, other scholars argue that purely stylistic definitions of the different camps of the debate (i.e., experimental versus avant-garde music) have proven difficult to sustain in the long run.[58] An important reason for this is the evidence of fruitful exchange between experimentalist and avant-garde composers, [59] as is the strange task of building a straightforward definition of experimental music's wide scope of aesthetic manifestations (from the aforementioned indeterminacy of Cage to the "completely determined music of early minimalism," and including the anarchy of Fluxus happenings, La Monte Young's eternal music and George Brecht one-time event pieces, as well as Pauline Oliveros' collective *Sonic Meditations*).

[57] David Nicholls, *American Experimental Music, 1890–1940* (Cambridge England: Cambridge University Press, 1990).
[58] See Georgina Born, *Rationalizing Culture*; Christopher Fox, "Why Experimental? Why me?," in *The Ashgate Research Companion to Experimental Music*, ed. James Saunders (London: Routledge, 2017), 25–44; Benjamin Piekut, *Experimentalism otherwise: the New York avant-garde and its limits* (Berkeley: University of California Press, 2011).
[59] Perhaps most notable of these exchanges is Cage's seminal presence at Darmstadt in 1958. While the usual story goes along lines that portray Cage's indeterminacy as being in diametrical opposition to the quasi-mathematical compositional resources promoted by Darmstadt, Martin Iddon suggests otherwise. Contra to Carl Dahlhaus, who argues that Cage's presence at the summer school "swept across the European avant-garde like a natural disaster," Iddon suggests that, on a musical level at least, others in Europe—including Henri Pousseur and Boulez, out of all people—were already spreading ideas related to those of the American experimentalist *par excellence*. See Martin Iddon, *New Music at Darmstadt: Nono, Stockhausen, Cage, and Boulez* (New York: Cambridge University Press, 2013).

3.2. Space, Instrumentation, and Popular Music

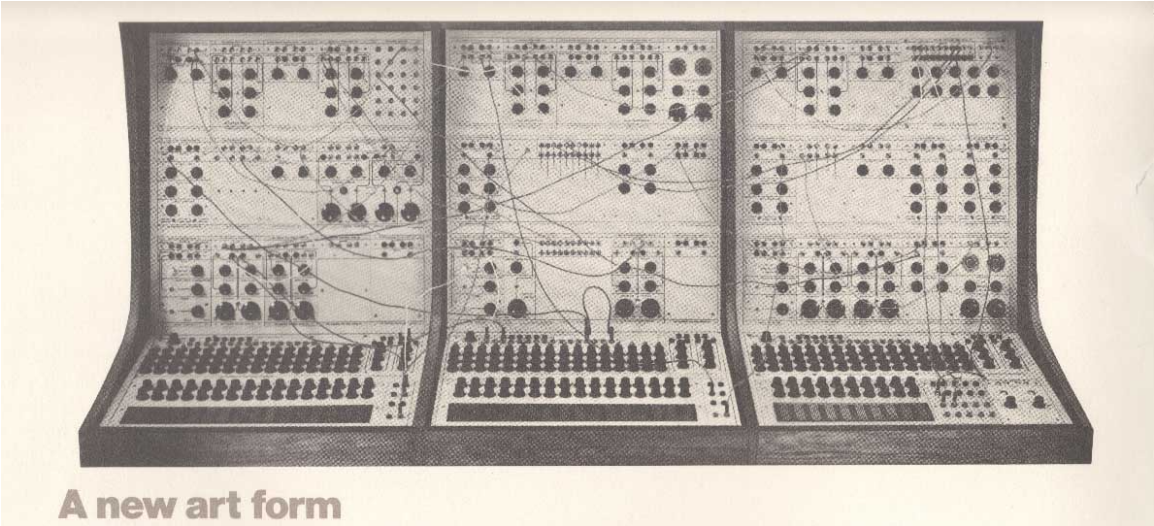
In a similar vein, topics of space and instrumentation have played an important role in discussions surrounding experimental and avant-garde music. Scholars have underlined discrepancies in types of music venues, and the related fashion with which composers make use of electronic instruments in the Post-War era. For example, Post-WWII high modernists have been said to rely more on an institutional or academic framework to sustain their art, and make use of expensive emerging music technologies such as modular synthesizers in a "high-tech, theoreticist and scientistic" fashion.[60]

Given this particularly heavy reliance on institutions by avant-garde composers, the emergence of technologically advanced studios such as the Columbia-Princeton Electronic Music Center in the early 1950s and IRCAM in the 1970s come to mind. In the ARP 2500 advertisement brochure, for example, Princeton University composer Milton Babbitt hails the new instrument for its "sophistication" as well as for the system's potential as "a 'total' studio with completely digital sound production [which] fill[s] every conceivable function that a composer, researcher, or teacher could envisage."[61] Perhaps playing on vanguard-ist inclinations towards the scientific side of things, advertisement brochures for electronic music instruments display progressive titles such as "A New Art Form" [Figure 2] or, by means of an elliptic frame, these brochures portray users of the synthesizers more as engineers participating in the

[60] Georgina Born, *Rationalizing Culture*, 54. See also Michael Nyman, *Experimental Music.*

[61] For the complete brochure, see "ARP Manual" on the internet archive website, consulted on June 13, 2022, https://archive.org/stream/synthmanual-arp-2500-brochure/arp2500brochure_djvu.txt . The ARP 2500 was the instrument on which Éliane Radigue composed the greater majority of her solo electronic works. Radigue purchased the very first iteration of its short series in the United States (number 71001, year of its fabrication), and managed to get a considerable discount because of it being the first of the series. (Email to author, October 11, 2019). Bringing the ARP back with her to Paris, Radigue's home became what can be considered one of the very first personal studios in France.

‘genesis’ of the 200 series Music Box than musicians performing on the instrument [Figure 3].



Figures 2 and 3. Buchla advertisements for the 200 series Music Box.[62]

While many scholars have picked up on the importance of new and emerging technologies in both experimental and avant-garde music,[63] Georgina Born perhaps most explicitly addresses how, on the one hand, technology was used by vanguards within an institutional setting, and how this usage was meant to heighten that institution's status as scientistic, theoreticist and high-tech. On the other, Born argues, experimentalists used technology in a more empiricist way, working out low-tech approaches exemplified by, for instance, feedback techniques.[64] Outside institutional frameworks, so-called experimental composers played on instruments created via *bricolage*, and performed their works in "alternative" or

[62] "History," Buchla website, accessed June 3, 2022, https://buchla.com/history/.
[63] See Born, *Rationalizing Culture*; Jennie Gottschalk, *Experimental Music Since 1970* (New York: Bloomsbury Academic, 2016); Elizabeth Hinkle-Turner, *Women Composers and Music Technology in the United States: Crossing the Line* (Aldershot, Hants, England: Ashgate, 2006); Michael Nyman, *Experimental Music*; James Saunders, "Introduction," in *The Ashgate Research Companion to Experimental Music*, ed. James Saunders (London: Routledge, 2017), 1–4.
[64] Born, *Rationalizing Culture*, 63.

"radical" spaces, as exemplified by the New York downtown new music loft scene in general,[65] or even Pierre Henry's 1967 *Concert couché* at the SIGMA Festival in Bordeaux, a "bring your own mattress" performance where an over-excited audience lay down while Pierre Henry performed his tape music set from the centre of a boxing ring.[66]

Experimental music's interstitial qualities have also been applied to its relationship with mainstream popular music. While throughout the second half of the 20th century experimental music has shared defining characteristics with popular music in terms of experimentation and real-time performances, the relationship is situated more within a unity of reference and transformation.[67] What is more, experimental music composers have proven to be quite reluctant in acknowledging this influence from popular music or jazz, and "prevailing definitions of experimental music have therefore addressed a predominantly white set of composers and practices."[68] To blur distinctions even more and as Georgina Born has shown, experimental music's rejection of commercial popular music links experimental music right back to the realm of the supposedly opposed avant-garde practices. Both vanguards and experimentalists sing along when it comes to discrediting forms of entertainment.

3.3. The 1990s and Beyond: A Call for More Complex Definitions

As shown, the debates and practices surrounding experimental music and the avant-garde have neither been cohesive nor consistent. Despite the attractiveness of neatly built

[65] Bernard Gendron, "Experimental Intermedia"; Tom Johnson, *The Voice of New Music*; Michael C Heller, *Loft Jazz: Improvising New York in the 1970s* (Oakland: University of California Press, 2017).
[66] Françoise Taliano-des Garets "Le festival Sigma de Bordeaux (1965-1990)," *Vingtième Siècle, revue d'histoire* (Paris: Les Presses de Science Po, 1992), 43–52.
[67] Born, *Rationalizing Culture*.
[68] Celia Sun, "Experimental Music."

opposite categories, some scholars call for a more complex definition of the avant-garde.[69] For example, Benjamin Piekut notably pays attention to experimental music's "fabrication through a network of discourses, practices, and institutions." Piekut stresses that while this network includes the avant-garde, its position is neither exclusive, nor is it only defined by means of an opposite relationship.[70]

Additionally, in that vein, scholars and actors of the scene have noted that, since the 1990s, the borders of the artistic positioning between both experimental and vanguard composers have become increasingly porous. One of the key factors in this shift has been the role of notation. According to composers Christopher Fox as well as Wandelweiser Collective founder Antoine Beuger, in many Western art music scenes (including those found in academic institutions), the score has lost some of its "dogmatic grip" on performance. [71]

This new "relaxation" of notation, still according to Fox and Beuger, is a consequence of the growing number of long-term direct collaborations between composers and performers, as instigated by experimental music ensembles such as Apartment House, Ensemble Dedalus and the Montreal-based Quatuor Bozzini, to name a few. In this type of collaborative model—where composers and performers often workshop the pieces together over extended periods of time, and can consequently discuss the work face-to-face—some minute details in the score become somewhat superfluous.[72]

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[69] See in particular "Prehistory," in Born's, *Rationalizing Culture*, 40–65, as well as Piekut's "Introduction: what was Experimentalism?," in his *Experimentalism Otherwise*, 1–29.
[70] Piekut, *Experimentalism otherwise*, 7.
[71] See Emanuelle Majeau-Bettez, "Quatuor Bozzini: de l'audace underground et upperground," *Circuit, musiques contemporaines* 29, no. 3 (2019): 9–30.
[72] For example, still according to Beuger, Quatuor Bozzini's professional residencies have participated in the redefinition of the composer and performer relationship based on exchange and collaboration. In the

In sum, while definitions of avant-garde or experimental music since the post-war era resist any form of neat or exclusive categorization, the debates surrounding the two different "camps" do succeed in outlining the network of tensions within which such categorizations emerged and evolved. In my dissertation, I namely read these tensions between vanguards and experimentalists in Bourdieu-ian terms, as "a field of possible forces […] reproducing in [its] own logic the fundamental divisions of the field of positions — 'pure art'/'commercial art', 'bohemian'/'bourgeois'."[73]

In the present case, the struggle between vanguards and experimentalists operates within a set of internal hierarchies inherent to a "subfield of restricted production" (i.e., within hierarchies of the "pure art" position). Indeed, throughout the second half of the 20th century, figures such as Boulez or Babbitt were part of a legitimized avant-garde (or "consecrated avant-garde," with institutional support, academic publications, etc.). Their aesthetic propositions have displaced a previous generation of vanguards who were consecrated when they made their entry into the field.

Similarly and as previously discussed, experimentalists have challenged vanguards' consecrated position, especially since the 1990s. In this logic, it is not so surprising to see experimental composers occupy positions that grant them the power to work as gatekeepers of style. Accordingly, the increasing porousness between vanguardian and experimental aesthetic propositions could easily be read as a gradual

ensemble's "Composer's Kitchen" residency, for example, composers workshop a piece for string quartet by meeting in person and working with the Quatuor Bozzini members as well as with mentor composers on a regular basis for an extended period of time. Through trial and error and in constant dialogue with the residency participants, composers are encouraged to focus their writing on what is important and intelligible to the performer. Chapter four of this dissertation addresses this residency more extensively.

[73] Pierre Bourdieu, *The Field of Cultural Production: Essays on Art and Literature* (New York: Columbia University Press, 1993), 54.

shift in legitimized symbolic capital: from "high-tech, theoreticist and scientistic" approach, to a more collaborative-based model.

Concerning Radigue specifically, this change in legitimization regarding more collaborative-based and experimental practices may partly explain the aforementioned change in the recognition of her music by institutions. Indeed, as briefly explained, while for the longest time Radigue's work was barely recognized as music, in recent years the composer has received important tokens of appreciation for her work. For example, and as I will address in further details in subsequent chapters of this dissertation, her most recent project in collaboration with performers, *Occam Océan*, as well as the electronic component of her career, have raised considerable attention and praise from more traditional institutions such as the Philharmonie de Paris and the Panthéon de Paris, as well as—of all modernist institutions—IRCAM and the Centre Pompidou.

3.4. Gender

In light of these important changes regarding the definition of the Western art music composer in the field of contemporary music—what it legitimizes and what it rejects—it is disheartening to note, still today, the persistent lack of women. While certain connotations conglomerating around the composer designation have been subjected to great tension and change (namely on the level of notation, its relationship to science and technology, and performance practice), assumed gendered conventions in contemporary (electronic) art music have barely budged.

Yet, despite the apparent resistance of this gender gap, my dissertation asserts that it is all the more important to move beyond recognizing that women are

underrepresented. Moreover, my project stresses the need to go deeper in our analysis of gendered discourses that shape what is accepted as a composer to underline *how* these discourses are nurtured overtime.

For example, and as briefly discussed, chapter three of this dissertation challenges the aforementioned notion of a shared "rejection of musical institutions and institutionalized musical values" by showing how this common understanding of experimental music fails to apply to Radigue, a composer who herself was rejected from these very institutions on the basis of gender.[74] I ask the following questions: how is a dominant discourse reinforced and validated? In other words, what are the social, political, economic, and ideological mechanisms that allow for a discourse, at a certain point in time, to be perceived intelligibly, to a certain number of people, as dominant? I use Bourdieu's theory of the fields of cultural production to flesh out some of the broader processes of legitimization that, at different moments in Radigue's career, have participated in placing certain artistic practices "above" others. I highlight these legitimizing activities in both the historical chapters of this dissertation, as well as in the ethnographic ones. Indeed, while Radigue's music has been more de-valorized than hailed for the greater part of her career, today's instrumentalists acquire a great deal of symbolic capital in meeting with the composer, let alone being decreed worthy of performing her orally transmitted works.[75]

[74] Cecilia Sun, "Experimental music."
[75] Although the goal of the collaboration between Radigue and instrumentalists is the creation of a new piece, this goal may not be fulfilled. If Radigue is not satisfied with the rendition of a piece, she will not "sign" the work. If a non-"signed" piece is to be performed, the instrumentalist may say that the piece is inspired by Radigue, but not that it is a Radigue composition.

4. THEMES OF DOMESTICITY

As hinted in previous sections of this chapter, notions of space and domesticity, as well as research on public and private spheres permeate my study of Radigue's career. It is important to note that Radigue would compose (and still composes) all her pieces in her Parisian home studio. One theme in which I am particularly interested raises the question of temporality—of the length of Radigue's compositions and the length of the period of their composition—and its relationship to domestic space. I argue that within the domestic sphere of Radigue's studio notions of time, performance practice, and diverse schedule constraints embrace a very different mode of temporality than that which is usually demanded within an institutional, or commercial framework. Through Radigue's experience, I try to highlight the intersections where, in the domestic space of her apartment, notions of time, music technology, and her music connect. This applies to both the solo phase of her career, as well as her ongoing collaborations with instrumentalists. In both cases, the epicentre of musical creation is Radigue's apartment. A broad overview of her career and the importance of her home studio is given here for the sake of clarity.

Until the early 2000s, Éliane Radigue, in her home studio in Paris, would produce sounds on her instrument of choice, the ARP 2500 synthesizer, and record hour-long continuously sounding pieces on huge rolls of magnetic tape. The modular synthesizer—a then-emerging musical technology—enabled Radigue to compose without having to confront more traditional, hierarchical institutions, like all-male orchestras of the time, or assumptions held by most instrumentalists in Radigue's environment.[76] In the early phase

[76] Interview, 2016. Radigue attempted to collaborate early on with instrumentalists with *FC. 2000/125* (1972), a piece for recorded ARP 2500 synthesizer and the Rist Trio (piano, flute and voice). The section

of her career Radigue did try to approach instrumentalists to perform her work: "If they came, they came only once, never twice. They would take their "*jambes à leur cou*!"[77]

As I will analyze in greater detail throughout this dissertation, the synthesizer not only permitted Radigue to compose music in the safe space of her apartment; it was the sole means by which she could make the sounds she wanted to hear. Without specific commissions, demands by ensembles or even planned dates of performance, Radigue's compositions became extremely long, both in terms of the length of an actual piece and the composition process. Whenever she felt a piece was ready to be performed (which was usually every three years or so) Radigue would call her American friend, composer Phill Niblock, to see when she could come and test her work at his nice installation.

Indeed, for her music to be played outside of her apartment, Radigue had to physically move around with her huge rolls of magnetic tape. Due to the extensive length of the pieces, and to the undesirability of cutting or editing the tracks because of her seamless aesthetic, Radique's works could not fit the 20-minute per side LP format; she thereby excluded herself from the only means of distribution offered by the music industry at the time.[78] It was only in the 1990s, with the advent of the CD format, that the

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for ARP has been fixed on tape, and the instrumental section of the piece was sketched. The work was never premiered. See "Éliane Radigue," in *b.r.a.h.m.s.*, last modified on February 3, 2020, http://brahms.ircam.fr/works/work/48324/.

[77] Their legs to their neck (to run away).

[78] A few notes on cassette tape: Although the compact cassette tape had been on the market roughly since the mid-1960s, they were mostly distributed as fully recordable "blank" cassettes. In the 1980s, the cassette became increasingly seen as a handy way to listen to music (especially in the car), and sales of pre-recorded cassettes increased. Total vinyl record sales remained higher than pre-recorded cassettes well into the 1980s, with the cassette attaining a brief peak between 1985 and 1992 in Western Europe and America. Above the compact cassette's time limitations (the most popular being the C46 and C60 models with respectively 23 and 30 minutes per side), and marketing strategies (designed for the car), at the time when Radigue was composing her recorded electronic pieces (between 1970 and 1980), the cassette tape would not have been a practical means of distribution. For the history of the cassette, see "Not Long Left for Cassette Tapes," *BBC*, June 17, 2005, http://news.bbc.co.uk/2/hi/technology/4099904.stm and Jude Rogers, "Total Rewind: 10 Key Moments in the Life of the Cassette," *The Guardian* August 30, 2013, https://www.theguardian.com/music/2013/aug/30/cassette-store-day-music-tapes

long compositions of Éliane Radigue were made available to a broader audience.[79] Until then, Radigue had to travel to concert venues with the rolls of tape to play her recorded electronic music.

In her current collaborations with instrumentalists, Radigue still composes the same sounds "she had always wanted to create" and which, until very recently, she had to make alone with her synthesizer: "Now, with the joy of sharing, how could I go back!"[80] On the level of the compositional process, it is clear that the years Radigue spent alone in her apartment deeply shaped her collaborative relationship with musicians: her pieces are still very long in duration and take a long time to compose; there must never be a set performance date before Radigue has decided that the piece is ready to be performed, and the composition of the piece still takes place in Radigue's apartment. In addition to the fact that Radigue's oral compositional approach requires person-to-person encounters, Radigue is too old to travel or oftentimes barely able to leave her flat. This means that instrumentalists have to physically come to her apartment to learn a piece. Growing interest in Radigue's music has led performers to fly numerous times and from all around the world to her apartment. Radigue's new pieces are subsequently played in festivals or other events throughout Europe and North America.

In my dissertation I pay attention to the movements that emerge from and criss-cross the domestic space in which Radigue is composing. By following and tracing performers, instruments, sounds, letters, telephone calls, and recordings that are initiated by, conglomerate around, and exceed the creation of one specific new Radigue piece, I

[79] See Radigue, Éliane. *Transamorem–Transmortem*. Recorded in 1973. Important Records IMPREC337, 2011, 1 compact disc, Liner notes.
[80] Radigue in discussion with author, 2017.

wish to share how her domestic studio—in both the electronic and the instrumental phase of her career—takes mobile dimensions that by far transcend its physical locality. Through musical creation, the domestic space of Radigue's studio becomes tentacular: since the early 1970s, it has reached an array of cities by putting into motion a plethora of musical events, and all the (now) musicians, festival organizers, audience members, and a plethora of other actors. Moreover, I shed light on Radigue as a composer whose "domesticity" does not limit her to isolation. I believe that mapping out the movements between Radigue's home studio and other urban spaces of music dissemination helps to understand Radigue as a (still) mobile composer.

5. CHAPTER SUMMARY

By means of case studies, my dissertation will focus on three major events in Radigue's career: first, Radigue's role as the assistant of renowned French composer and co-founder of *musique concrète*, Pierre Henry in the 1960s; second, her transatlantic move to the United States in the 1970s; and third, her current collaboration with the Montreal-based Quatuor Bozzini as well as with the OCEIM ensemble (Orchestra of New Musical Creation, Experimentation and Improvisation).

Chapter One serves as a general introduction to Radigue's music. It gives an extended outline of Radigue's œuvre, and positions it in regards to the aforementioned historically accepted discussions about experimental music.

Chapter Two traces Éliane Radigue's presence as the assistant of *musique concrète* pioneer Pierre Henry. More precisely, this chapter will revisit a specific event by discussing the unacknowledged role played by Éliane Radigue during Pierre Henry's

performance at the alternative arts festival SIGMA. In 1967, Radigue served as Henry's assistant for the presentation of his *Messe de Liverpool*. On stage, Radigue made a discreet move that completely changed the formal and temporal structure of Henry's work; what was supposed to be a series of discrete sound segments interleaved with sections of silence was remade to be a work of continuous sounds. This gesture, which "broke the silences" and through which Radigue became audible, was rendered inaudible by Henry's own silence on the matter. For years to come, the 2,000 people who had attended the event could not possibly imagine that the "little assistant" had had anything to do with this surprisingly radical sound. Looking at footage of the audience's reactions after the performance, I will observe points of struggle and acceptance around what was thought to be Henry's sound. Drawing on archival material (press reviews of the concert, footage of the event, publicity for the festival) as well as on interviews with Éliane Radigue, I am interested in what her double presence—audible/inaudible—reveals about the festival's ideological context. This chapter will demonstrate how following Radigue's traces within the SIGMA archive enables our observations to capture what people *decided* to remember, as well as the larger ideologies that often shape these decisions.

Chapter Three revisits certain aspects of the 1970s New York downtown new music scene through Radigue's experience with, and participation in, the then-emerging loft music venues. Scholars have commented upon the informality and the domestic-like aspects of the 1970s New York downtown new music loft scene. Such accounts emphasize the flexibility of time planning, the ridiculously cheap cost of events, food and drinks, and the laid-back attitude of musicians and audience members.[81] Domesticity is

[81] Gendron, "Experimental Intermedia."

read as indicating the status of lofts as alternative "third spaces," eschewing both the commercial demands of nightclubs, and the formal restrictions of high-art concert halls.[82] While acknowledging the new modalities of performing, listening and networking that were afforded by such spaces, this chapter questions the concept of the "third space," and problematizes the way domesticity is expressed by scholars when reminiscing about the New York experimental music scene. I investigate such notions by following Éliane Radigue in her 1970s trips from Paris to two New York lofts, The Kitchen and Phill Niblock's Loft. As a composer whose gender has historically been bonded to the domestic sphere, such "third (loft) spaces" presented Radigue with the only public venues in which she could perform her music. I therefore argue that nostalgic renderings of the loft era's domesticity, and the sense of choice embedded in "third spaces," are symptomatic of an analysis that limits itself to an assumed hegemonic male sensitivity. I conclude this chapter by emphasizing how privileging a male perspective participates in obscuring the labour and modes of resistance of female composers who creatively reappropriated domestic spaces and, in Radigue's case, whose stubborn aesthetic desire repeatedly drove her across the Atlantic Ocean.

Chapter Four analyzes the dynamics of the new and current collaboration between the Montreal-based Quatuor Bozzini string quartet and Éliane Radigue. This chapter explores the ways in which the actual sound of a Radigue piece generates radically new understandings of performance and composition. Drawing mainly on field notes and recordings of Quatuor Bozzini's early rehearsals with the composer, as well as later performances of their Radigue piece, *Occam Delta XV*, this chapter highlights moments

[82] Heller, *Loft Jazz*.

of strong emotional response to, or caused by, Radigue's sound. Affective reactions on both Radigue's and Quatuor Bozzini's side reveal points of tension between different assumptions regarding collective creation in general, as well as performance practices connected to leadership and control more specifically. In general, I show in this chapter how Radigue's sound, which she has developed with the ARP synthesizer for over 4 decades, now crosses over to challenge today's contemporary music ensembles, and to enrich the experimental music scene with yet another version of what a composer can be. Ethnographic and recorded data collected for this chapter ranges from the quartet's first meeting with Radigue in 2017, to their more recent interpretations of *Occam Delta XV* in 2021.

Chapter Five looks at Radigue's collaboration with different musicians of the ONCEIM Parisian-based ensemble, and will serve as a point of comparison with the previous ethnography of the Bozzini-Radigue encounters. Like the Quatuor Bozzini, the ONCEIM ensemble is a long-standing group. Yet, unlike the Montreal ensemble, ONCEIM specializes in free improvisation, and its thirty-four members come from different backgrounds, including classical, jazz, improvised, laptop and experimental noise music.[83] What is more, the musicians that form ONCEIM do not exclusively play for this ensemble (as do the members of the Quatuor Bozzini). Rather, ONCEIM is a gathering of "many active improvisers from the French improvisation scene".[84] How does decision-making take place in a Radigue piece when the number of performers is larger?

[83] Clément Canonne, "Rehearsing Free Improvisation? An Ethnographic Study of Free Improvisers at Work," *Music Theory Online* 24, no. 4 (2018).
[84] Canonne, "Rehearsing Free Improvisation?"

How does the notion of control of the sound material come into play? Or, perhaps more basically, how does a large ensemble even rehearse a Radigue piece?

I also use this section of the dissertation to follow ONCEIM's artistic director, Frédéric Blondy, during rehearsals of his Radigue solo piece for organ, *Occam XXV*. Specifically, I document how, when performing in a new hall, Blondy has to adapt to the organ at hand. Moreover, I observe the way a solo performer prepares for a Radigue concert. This chapter, and the previous one on the Quatuor Bozzini, will provide first-hand insight into how different performers react and adjust to Radigue's musical transmission and collaborative practice.

6. CONCLUDING REMARKS: FROM MADAME RADIGUE TO ÉLIANE[85]

My dissertation project on Radigue revisits what experimental music was, what it is now, and a plethora of changes and propositions that appeared and disappeared in between. I can affirm this, because for the past six years, I have had the chance to work closely with Éliane. *Chance* is not the correct word. I contacted the composer by manuscript mail in spring of 2016, asking her for an interview. We met for the first time that summer, and since then I have written to Éliane once or sometimes twice a month, asking her questions to which she diligently answered. Exchanges evolved from formal to casual: from "vous" to "tu," and if we first signed with "bien cordialement," we now end our exchanges with "je t'embrasse très fort." Whenever I can, I now send her pictures of rehearsals or

[85] In this section of the dissertation exceptionally, I use Radigue's forename to illustrate how our relationship changed over the course of this research project, and quickly evolved from a very formal to a friendship-based collaboration.

concerts to which she cannot attend.[86] Slowly, my role has evolved from researcher, to researcher-and-middle-woman between the composer's apartment and the spaces to which she cannot travel anymore. Not *chance*, but *time*. Time to get to know another person, to build trust. From an ethnographic perspective, I have become extremely close to my "studied population." While I am aware of the responsibility that comes with this type of situation, it is worth noting that were it not for the relationship I have built with Éliane, I could not have had access to most of the data that I am analyzing in my dissertation project. Included in this notion of access are the interviews, of course, but also and most importantly, the opportunity to attend and document the collaborative process between the composer and instrumentalists.[87]

I thus use my close knowledge of Éliane Radigue as a way to enter events through a different door: an entry point through which Radigue's presence, work and creativity can be acknowledged and understood. Retelling stories according to Radigue's perspective betrays the tenuousness of dominant historical discourses, thus opening them up for other voices to be heard, and remembered.

[86] A reminder that Radigue is now 90 years old and, although she does not have any particular condition, she is often forced to stay home and rest.
[87] Radigue and other instrumentalists have up to now refused the presence of a third-party during rehearsal time. My ethnographies are the exception.

CHAPTER 1. Eliane Radigue's Oeuvre

Perhaps I was influenced by Morton Feldman a few years ago when he wryly mentioned that, since this is the Jet Age, everyone thinks that we ought to have Jet Age music to go with it. Things have simmered down a little since the multi-media craze of the late '60s, but quite a bit of the music written today is still oriented toward speed, loudness, virtuosity, and maximum input, Eliane Radigue's music is the antithesis of all that.

Tom Johnson, *The Village Voice*[1]

1. A QUEST FOR THE INFINITESIMAL

While later chapters of this dissertation analyse specific case studies surrounding Radigue's music or participation in a given artistic scene, this short opening chapter offers a general overview of the composer's oeuvre with regards to her life-long artistic goal: Éliane Radigue dedicated—and is still dedicating—her career to the discovering, and above all listening to, the minutest activities of the world of sound. Each of the composer's pieces aims to build a framework within which it is possible to hear the natural micro-beats between frequencies.

In that respect, in Radigue's music, the oscillations between the partials replace external forms of organization, like traditionally notated rhythm, pitches, and chords. Thus, in a way, the organization of Radigue's compositions stem *from* the sound itself. In her work, temporality and form is no longer understood as an external structure imposed

[1] Tom Johnson, "Minimal Material: Eliane Radigue," in *The Voice of New Music New York City 1972 – 1982* (Paris: Éditions 75, 1989), http://editions75.com/tvonm/. This section of the dissertation is a modified and translated version of Radigue's "Parcours d'œuvre," previously published on IRCAM's b.r.a.h.m.s. database. See Emanuelle Majeau-Bettez, "Éliane Radigue Parcours de l'œuvre," in *b.r.a.h.m.s.,* last modified Februray 3, 2020, http://brahms.ircam.fr/eliane-radigue#parcours.

by the composer, but rather as inherent, emergent and inseparable from the internal activity of sound.

Although Radigue's catalogue can easily be divided into three periods, it is important to stress that this categorization has more to do with the techniques utilized by Radigue, or even with mere time periods, than with her aesthetic approach. Indeed, while her career could be divided according to the different instruments she used in her compositions—tape recorders up to the 1960s, modular synthesizers until the early 2000s, and collaborations with performers up to this day—Radigue's signature sound remained the same over the years, and crossed over these technical boundaries. For example, her "sound propositions," which she constructed through feedback and re-injection between tape recorders in the late 1960s; her massive and pioneering work for modular synthesizers, which spanned from the 1970s to the 2000s; and her more recent collaborations with performers were all motivated by one main aesthetic goal: that of listening to the micro-vibrations—or internal activity—of sound. Feedback techniques and modular synthesizers were so many tools to achieve this.

In terms of approaches to sound, Radigue can be linked to some of her American minimalist colleagues. One thinks of Charlemagne Palestine, Phill Niblock, but above all La Monte Young who, according to scholar Keith Potter, participated in the establishment of musical minimalism based on the exploration of the interiority of sound.[2] Nevertheless, it is important to limit the comparison between Radigue and minimalism to this interest in intrinsic sound activity. On the harmonic level, Radigue

[2] Grove Music Online, s.v. "Minimalism (USA)," by Keith Potter, accessed March 16, 2020, https://doi.org/10.1093/gmo/9781561592630.article.A2257002.

distances herself from the stagnation of the so-called "drone" side of the musical stream.[3] As concerns politics, Radigue's practice is neither motivated nor defined by an active rejection of academia or other aesthetic currents. As hinted in the introduction of this dissertation, while minimalism has sometimes been considered "a weapon to challenge the hegemony of post-war serialism,"[4] such a definition fails to provide an adequate portrait of the Radigue's artistic goals and social positioning. Perhaps more parallel to—rather than openly against—aesthetic upheavals, Radigue has, year after year, developed a body of work that leads back to what she considers to be the basis of sound reflection: a mode of listening that focuses on the features of sound, regardless of its cause or possible meaning. Radigue found in Pierre Schaeffer and Henry the affirmation of the potential of this "reduced listening." [5] In addition to the classification, mixing and premixing techniques used throughout her career, this sonic revelation is perhaps the most important legacy that Radigue has inherited from her early mentors. She then learned a way to listen—close to what Pauline Oliveros calls deep listening or what is illustrated by John Cage in his famous *Silence*—that takes sound activity as it appears, without transforming it into a vehicle for a theory or for the expression of a human feeling.[6]

[3] Radigue's categorization within or outside of the drone music genre has namely given rise to discussions between Radigue and Tom Johnson who, despite Radigue's own insistence on the fact that, unlike drone pieces by Phill Niblock or Ellen Fullman, for example, her music presents important harmonic changes. Radigue also once tried to explain to a journalist that her music and drone "were not quite the same thing." The journalist nonetheless published an article entitled "Drone de dame." See Bernard Girard, *Entretiens*, 72.

[4] Keith Potter, "Minimalism (USA)."

[5] See Michel Chion's chapter "The Three Listening Modes," in his book *Audio-Vision: Sound on Screen* (New York: Columbia University Press, 2019).

[6] Whether such a listening practice is in effect possible is, of course, open to critical discussion. Yet, my goal in linking Radigue's listening mode to Cage and Oliveros is to help the reader situate Radigue within such ideological propositions, and thus to better understand the motivations that underlay her compositional process.

2. INTERFERENCE GAMES, PART I: GESTURE AND LISTENING

Certain parameters of Radigue's music can be compared to the music of Giacinto Scelsi, in the sense that her largely intuitive work plunges both the listener and the interpreter into the very heart of the sound.[7] On a microscopic and intensive scale, there is a play of nuances, modulation, energetic variations, and changes in texture. For the performers of her music, as well as for Radigue herself, the sound material thus consists essentially of work on partials, overtones, microbeats and pulsations.

In performance, Radigue's works often start with a clear fundamental, or first harmonic. Yet this fundamental is quickly forgotten in favour of the natural harmonics that emerge from it. Such precarious sound material can only be obtained through sustained notes, played in nuances ranging from *pianissimo* to *piano*. A few *mezzo fortes* may appear here and there, but only with the utmost care: if the fundamental is played too insistently, it immediately supplants the musical discourse and makes the microbeats disappear, thus bypassing what forms the very heart of Radigue's work.

This fragility of the material underlies the performance of all the pieces of Radigue's corpus. The sounds of her early works for feedback proved extremely difficult to control, and could only be produced with a touch "*du bout des doigts* [by the tips of the fingers]," a tactile pleasure that Radigue would later rediscover in her encounter with modular synthesizers, and which she passed on to the performers who collaborate with her today. A certain patience of gesture, therefore, is necessary for the realization of all her works, but also and above all a patience of listening. In *Jouet électronique* (1967), it

[7] Jacques Amblard "Giacinto Scelsi Parcours de l'œuvre," in *b.r.a.h.m.s.*, last modified April 7, 2009, http://brahms.ircam.fr/giacinto-scelsi#parcours.

was a question of controlling the potentiometers (for recording and/or playback) by minute manipulations. These extremely delicate and precise gestures allowed the emergence of beats, created between two tape recorders connected through a re-injection circuit. Similarly, in order to obtain purring sounds through the Larsen effect, Radigue had to find the right distance between the tape recorders, and then make only tiny adjustments, only at the right time. If Radigue brought the microphone of one tape player too close to the other tape player's loudspeaker, the Larsen effect would produce the loud, high-pitched screeching sound it is known for. In other words, Radigue had to be patient enough to find the right space between the tape recorders, and play in that tight, liminal zone between silence and overwhelming loudness.

Later, the greater stability of modular synthesizers allowed Radigue to imperceptibly reshape the oscillations of the held sounds. In *Chryp-tus* (1971), her first piece for taped synthesizer composed with the Buchla, Radigue played with all the possible internal variations in a sound. It was the encounter of a creator with an object that finally gave her the pleasure of playing with harmonics, acquired only occasionally with feedback techniques. Low pulses to the tiniest beats appeared under Radigue's touch, who had the patience to move the potentiometers almost imperceptibly [Figure 1]. Radigue never used the keyboard of the synthesizers, although one was available with the ARP 2500, for fear (as Don Buchla himself declared) of falling into keyboard habits and thus losing the sensory pleasure of gesture and listening.[8]

[8] Emily Dolan underlines how when Moog was building and selling his first modular synthesizers in the mid 1960s and early 1970s one of his main competitors, Don Buchla, vehemently resisted such an inclusion. According to Buchla, a keyboard is "dictatorial," and, when faced with the white and black keys, one cannot resist playing "keyboard music." See Emily Dolan "Toward a Musicology of Interfaces," in *Keyboard Perspectives* 5 (2012), 8.

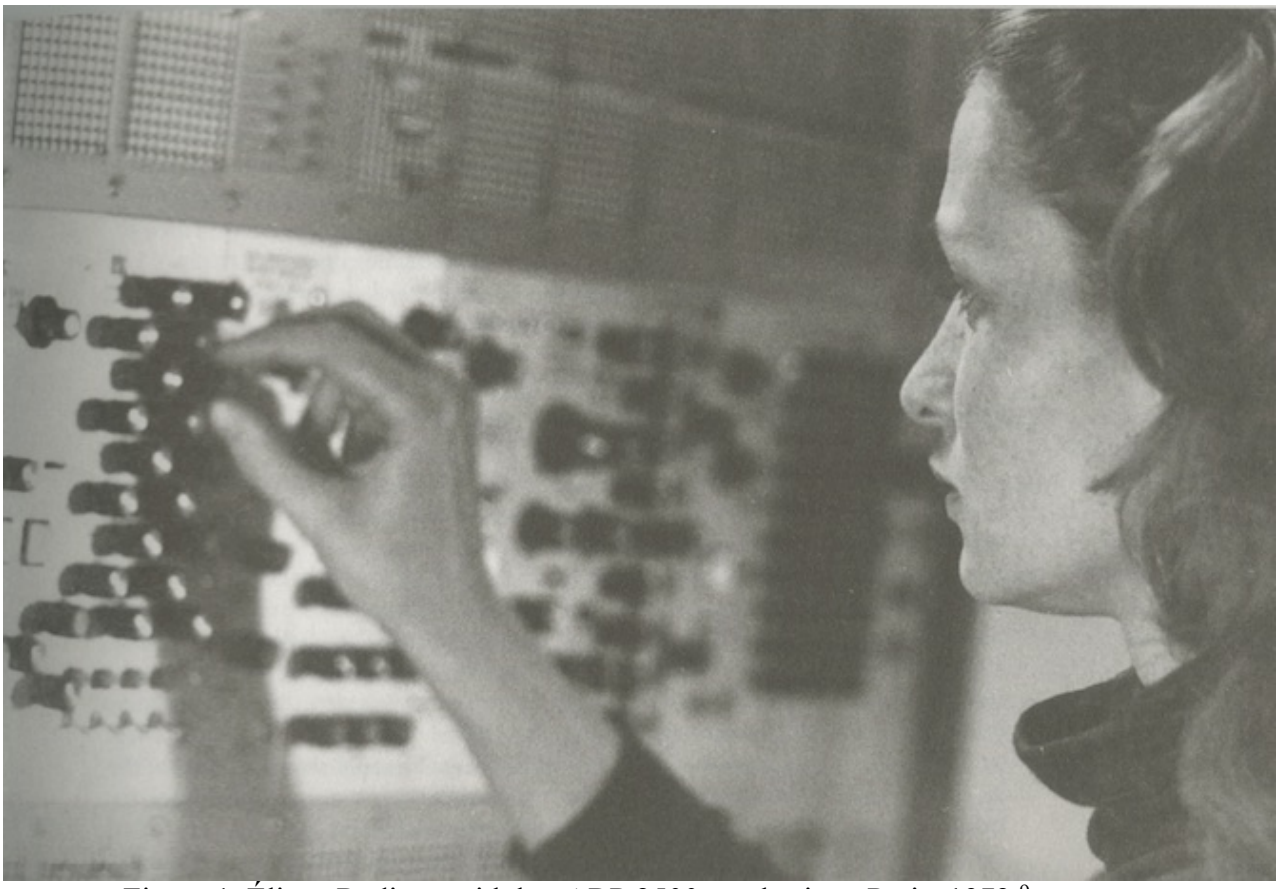

Figure 1. Éliane Radigue with her ARP 2500 synthesizer, Paris, 1972.[9]

Since the beginning of her collaborations with performers, Radigue has been transmitting this gestural virtuosity, which until then and for over forty years had been developed in a solitary, face-to-face manner with a synthesizer. The fragility of Radigue's

[9] "Éliane Radigue Parcours de l'Œuvre," Base de documentation sur la musique contemporaine b.r.a.h.m.s, Last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#parcours.

sound material—more so than the composer herself, and beyond the technology employed—requires great patience, in both listening practice and gesture. For example, in *Occam Delta XV* (2018), an instrumental piece by Éliane Radigue for the Quatuor Bozzini (see chapter four), the musicians often play more or less the same notes, but a few cents apart. When held, an interference pattern progressively appears between the two sustained fundamentals, and is perceived as beating.[10] As sound signals interfere in this way, the beat signal can sometimes even be heard as a separate note; an extra note, self-generated by the encounter of sound signals. [11] These resulting tones accumulate in Radigue's music to form what evokes, for clarinetist Carol Robinson, the image of a large ball of sound floating in the air during the performance.[12] The metaphor could not be more accurate: similar to Radigue's feedback works, the material of her pieces for performers can, under the shock of an overly abrupt attack, immediately return to the silence from which it emerged. [13]

Moreover, in the course of the performance, the inevitable accumulation of these independent frequencies greatly complicates the distinction between the notes actually played on an instrument and the notes that result from these frequencies as they brush together. A paradox emerges from the playing of these compositions: on the one hand,

[10] Max F Meyer, "Subjective Tones: Tartini and Beat-Tone Pitches," *The American Journal of Psychology* 70, no 4 (1957): 646–50.
[11] These 'extra' notes are called Tartini tones, or difference tones: "Tartini tones sound like a low-pitched buzzing note with a frequency equal to the difference between the frequencies of the two interfering tones." Visit University of New South Wales School of Physics. "Interference Beats and Tartini Tones," http://www.animations.physics.unsw.edu.au/jw/beats.htm#sounds, accessed December 10, 2018.
[12] Interview with author, fall 2017.
[13] This last observation is perhaps hard to fathom without having heard a Radigue acoustic piece. What is important to understand is that for the beating patterns to accumulate, sustained tones are required. If one instrumentalist makes an abrupt change of note, this quick gesture literally "pops" the beating material, and the sound immediately becomes "flat" (i.e., the fundamentals re-emerge, and covers up the activity of the harmonics).

Radigue's music requires high instrumental precision, while, on the other hand, it "self-generates" beyond the control of the performers. In other words, the composer's music does not so much do away with all forms of control as it pushes its performers to adopt a very specific type of mastery of the sound. Performers of her music, like the composer herself, devote their energy to creating a space in which the sound's interiority can deploy itself, and exist almost on its own terms.

In this dissertation, I am interested in drawing the intersections at which Éliane Radigue's past history as a solo electronic music composer, and her current work with instrumentalists, meet. Her experience with feedback techniques or the modular synthesizer (which enabled her to create music without having to deal, at the time, with performers' preconception of what a composer should be) now crosses over and continues to surprise and challenge today's experimental ensembles, and offers to the experimental music scene yet another version of a composer identity.

3. PERCEPTIONS

The listener's ear, much like the eyes when adapting to a drastic change in brightness, sometimes takes a little time before perceiving the details that exist at such a scale of sound. "Is it still the silence of the room? Has the work already begun?" some spectators seem to ask themselves at the beginning of Radigue's concert, somewhat perplexed by the attitude of others who, already initiated, close their eyes, in a state of intense concentration. This polarizing effect, characteristic of Radigue's works since the very beginning of her active life as a musician, is the result of a singular phenomenon: the musical events that take place on such a micro-scale can only happen through a "macro"-

temporality. In less suggestive terms, Radigue's sound material (microbeats between harmonics) needs time to emerge from the sustained tones. Changes in her pieces consequently happen extremely slowly, and such a pace often goes beyond the finesse of hearing. If, at a certain point, one perceives that a modulation has indeed taken place, it is almost impossible for the listener to grasp precisely where and how this change has taken place.

Some have compared this phenomenon to an experience similar to contemplating or observing nature. One thinks of a stream of water with all its currents and swirls. To quote a poem by Verlaine dear to the composer, rivers and the like present a surface that is "*chaque fois ni tout à fait la même, ni tout à fait une autre*."[14] The more drastic among admirers of her work have even evoked the growing of a flower or a tree: changes in Radigue's music happen without being noticed *in situ*.

In the visual arts, a world with which Radigue has maintained many links, one could compare her work to the *Wandarbeiten* (wall works) of Mauser, a member of the Wandelweiser collective [Figure 2]. Made of translucent paper, these works are glued to the white walls of a room, so that at first glance the room appears to be completely devoid of art. The perception changes with the light, which, depending on its angle, is captured by the squares of paper, making them appear and disappear almost elusively.

[14] "Each time neither completely the same nor completely different" (translation by the author). Paul Verlaine, "Mon Rêve Familier," in *Poèmes Saturniens*, (Cork: Ligaran, 2015).

Figure 2. Mauser *Wandarbeiten*. Kunstraum Düsseldorf, 2006.[15]

[15] "Éliane Radigue Parcours de l'Œuvre," Base de documentation sur la musique contemporaine b.r.a.h.m.s, Last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#parcours.

Radigue's work invites such sensory acuity and requires from the listener a certain sensitive resilience, even a letting go, through which the porousness between silence and music is accepted. It is thus an immersive experience on two levels. It is a dive down into the minuscule and maze-like world of sound itself while, at the same time, the imperceptible developments of this sound merge, among other things, with the silence and the dimensions of the performance space. Radigue's music often steals forth from silence as if it had always been there.

Moreover, much like the *Wandarbeiten*, certain sounds in the composer's works can seem to emanate directly from the walls. This was the case—literally—at the premiere of *Omnht* (1970). As in *Usral* (1969), one of her earlier pieces for feedback, *Omnht*'s three asynchronously looped tapes overlap and interfere with each other, creating music that transforms itself impalpably. For the premiere, Radigue had hidden Rolen Star loudspeakers behind the walls of an installation by artist Tania Mouraud. Already at the time, it was essential for Radigue to make the space "sound": Radigue's attention was focussed on the acoustic response of the hall, so that the sound could not be traced to a particular source, and thus build up an interesting "story" everywhere.

Almost all the works of this feedback period (including $\Sigma=a=b=a+b$ (1969), *Usral* (1969), *Opus 17* (1970), and *Vice-Versa, etc…*) were composed for art galleries or similar spaces. Thus, in terms of material and creative space, these early pieces by Radigue can be defined, in retrospect, as the precursors of today's sound installation. In these immersive environments, Radigue played not only with interference on the level of the material (recorded feedback and superimposition between different tapes), but also with that of the resonance of the place. Tom Johnson, in a review for *The Village Voice*,

was one of the first to point out this phenomenon. Speaking of *Psi 847* (1973), a work composed with the ARP 2500 synthesizer, Johnson notes that he heard certain motifs emanating from incongruous corners:

> Perhaps the most interesting thing about 'Psi 847' is the way its motifs seem to come from different places. They were all produced by the same loudspeakers, and many of them seemed to come directly out of the loudspeakers. But some of the sounds seem to ooze out of the side wall, and others seem to emanate from specific points near the ceiling.[16]

Although this phenomenon is not necessarily exclusive to Radigue, it is fair to say, as Johnson does, that her works have the quality of drawing attention to these acoustic games that, in many other musical performances, go completely unnoticed. There is a very simple reason for this peculiarity: space in Radigue's work is literally essential to the development of the sound material, since it is formed throughout the work by a natural accumulation of frequencies. Beginning with sustained notes, musical motifs and textures almost always emerge from the silence of the room and gradually fill it up. In a way, Radigue's music makes the space resonate as it is. This approach places Radigue among the "auditory architects" as defined by Berry Blesser.[17] At the antipode of acoustic engineering techniques that transform a place, creating zones of directed and optimal listening, Radigue "focuses on how listeners experience space."[18] This attention to the aural experience was put forward by Radigue throughout her career, shocking even some sound engineers when, for the broadcast of a synthesizer work recorded on tape, the composer placed her speakers in a "completely anti-acoustic" manner. For Radigue's

[16] Tom Johnson, "Minimal Material: Eliane Radigue," in *The Voice of new music*.
[17] Bary Blesser and Linda-Ruth Salter, *Spaces Speak, Are You Listening?: Experiencing Aural Architecture* (Cambridge, Mass., MIT Press, 2007).
[18] Blesser and Salter, *Spaces Speak, Are You Listening?*

music does not guide the ear through a narrative and does not impose a particular timbre: rather, it exposes the listener to a game of sounds. This proposition, which is addressed less to the intellect than to the whole body, is often confusing because of its non-directionality. Immersed, the ear filters, selects, and creates its own channel among a fresco of sound undulations. Radigue's music, according to Michel Chion, "requires a great deal of availability […] next to which all the others seem to pull the listener by the sleeve."[19]

4. INTERFERENCE GAMES, PART 2: MODULAR GENERATION

Feedback effects, re-injection, Tartini tones: since the years of her earliest feedback pieces, Radigue's material has been filled with sounds that somehow self-generate and multiply. Moreover, with *Accroméga* (1968), Radigue began to explore this self-generating effect beyond feedback techniques, and started to experiment with looped tapes of different lengths. Juxtaposed, the magnetic tapes imperceptibly desynchronized during the performance of the piece, playing with different frictions between the recorded pulses, only to regain their initial synchronism after a few hundred hours. In 1970, she presented $\Sigma=a=b=a+b$. Engraved on four sides of 45 rpm vinyl, the work could be played in a combinatorial way, at different speeds [Figure 3]. Similarly, the two stereo tracks of *Vice-versa, etc...* could be played together or separately, at the chosen speed, forward or backward, on several tape recorders. The pulses, obtained by feedback and

[19] Michel Chion and Guy Reibel, *Les musiques électroacoustiques*, (Aix-en-Provence: INA GRM edisud, 1976), 135.

recorded on two tracks, interfere with each other by juxtaposition, at the whim of whoever played them.

Figure 3. Vinyl from Σ=a=b=a+b.[20]

The duration and structure of these early works were thus, already at that time, organized according to a modular logic. The essence of the piece was defined by a certain combinatory potential. Like a modular synthesizer (where independent modules can be

[20] "Éliane Radigue Parcours de l'Œuvre," base de documentation sur la musique contemporaine b.r.a.h.m.s, last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#parcours.

connected to affect a given sound signal), *Σ=a=b=a+b* and *Vice-versa, etc...* proposed, among a variety of possible groupings, different parameters of speed and direction, as well as the number of tracks used. The work was, even before it was played, ontologically multiple.

Because of the instrumentation, Radigue's pieces for ARP, Buchla, Moog or Serge synthesizers inevitably have a modular component, but it is perhaps in her most recent project with performers, *Occam Océan*—a project generated from the fusion of already existing pieces—that Radigue returned to her first love of different instrumental combinations. The twenty-seven solos of the cycle, custom-built for each musician, are assembled to form duets, trios, quartets, quintets, right up to a large ensemble piece, *Occam Océan* (2015).

The *Occam Océan* pieces form a work that is "by nature unfinished because it is unfinishable," and through which one can hear the culmination of over sixty years of sound research. The listening mode of the performers, to which Radigue proposes to apply philosopher William of Occam's principle of parsimony, completely determines the duration of each performance.[21] This reasoning becomes both an interpretive guide for the musicians and a determining factor in the structure of the work. If, for example, during a performance one section of the piece does not have the desired intensity, it is better to move on to the next section immediately rather than trying to hold on to something shaky and uncomfortable. Conversely, when a section sounds and feels great, musicians are encouraged to hold it for as long as possible to prolong the pleasure. Thus,

[21] For example, the timing and the duration of a transition in a given piece are completely up to the performers. Yet, Radigue encourages them to follow (her adaptation of) William of Ockham's razor: "Simplest is always best."

the duration of each section of the work is determined by what, in the heat of the moment, seems to be the simplest solution for the performer. In short, Radigue's music resists any forced behaviour, for musicians do not perform the sound as much as they keep its activity in balance; that they maintain a space where, from held tones, sound interiority can emerge.

5. TRANSMISSION

Transmitted orally by Radigue, the pieces of this cycle can, in addition to their potential combinations with already existing pieces, be transmitted. To date, such an extension has only taken place once, but it is enough to state the obvious: learning a work by Radigue does not consist in copying an existing piece.[22] Rather, it is a matter of shared sensibility—anchored above all in listening—that seeks to set free the "inner life" of sound, which is the key to all of Radigue's artistic research.

Since the 1960s, Radigue has been building a catalogue whose function as an aesthetic whole cannot be denied. The composer herself readily declares that she has been composing essentially the same music her entire life. In this sense, the image of a permanent "installation," erected by Radigue over the course of her career is tempting. Yet, while certainly marked by the determination of her unitary and single-minded quest,

[22] Éliane Radigue's *Occam II* (2012) for solo violin was transmitted to Irvin Arditti by violinist, performer and improviser Silvia Tarozzi. Arditti performed the solo for the first time on September 30, 2019, at the Sacrum Profanum Festival in Krakow. http://sacrumprofanum.com/programme/exploratory-1, accessed March 16, 2020. *Occam Océan*, Radigue's piece for large ensemble performed by the ONCEIM ensemble, is arguable the first piece to have been transmitted. Not all ONCEIM musicians are required to perform Radigue's piece and, depending on the performance date, musicians will take turns playing *Occam Océan*. This includes newer musicians, or musicians that did not meet Radigue in person during the learning process. ONCEIM musicians that have experience with the piece will thus often transmit it to another performer for pragmatic reasons.

Radigue's catalogue can difficultly be limited to the static space evoked by the idea of an installation. Indeed, in a recent *Sound American* issue dedicated to the *Occam* series, cellist Charles Curtis nicely summed the rather fluid nature of the project: "it is clearly not a matter of a composition which is known in advance and replicated in performance, but it is a composition which emerges through a series of stresses, pressures, availabilities, possibilities that are immediate to the moment of performance and have to be actually investigated in real time."[23] Moreover, as I will describe in later chapters of this dissertation, Radigue's sound often goes almost beyond the control of performers of her music and, in its play with combinations, somewhat beyond the grasp of the composer herself.

[23] Charles Curtis, "Unified Sounding Body," *Sound American*, no. 26 (2021). https://soundamerican.org/issues/occam-ocean/unified-sounding-body.

CHAPTER 2. "A Concert the Way He Likes It": Radigue's (Unmentioned) Presence at the *Festival SIGMA de Bordeaux*

In 1967, Éliane Radigue assisted *musique concrète* composer Pierre Henry during his striking performance at the alternative arts festival SIGMA de Bordeaux (1965–1996). Staged in a boxing ring, Henry's concert was thoroughly documented by the press of the time and was saluted by journalists as epitomizing the festival's bold, experimental and radical aesthetic. Yet, while photographs of the event reveal other artists' active presence on stage, press reviews tend to construct Henry as the sole actor of the evening, with courtesy nods to the visual artist Thierry Vincens and the narrator, Jacques Spacagna.

Radigue, the assistant, is never mentioned. While dismissal of women's labour in such contexts often comes as no surprise, it is all the more disturbing considering that in many pictures of the event Radigue seemed to be the target of the photographic eye.[1] Moreover, while on stage and without Henry's permission, Radigue decided to change his piece. Instead of playing discrete sound segments interleaved with sections of silence—as she was told to do—Radigue rather decided to play long, sustained sounds. After the performance, Henry did not comment on Radigue's intervention. Thus, Radigue gesture, which "broke the silences" and through which Radigue became somewhat

[1] In interviews, Radigue has shared how, as an assistant, she has often been the target of such reductive remarks: "I'm thinking particularly of Studio d'Essai, where it wasn't easy. The story of the technician saying, 'what's good about having Éliane in the studio is that at least it smells good,' provides the immediate measure of the appreciation we received [as volunteer assistants]." See Eckhardt, *Intermediary Spaces*, 80. Moreover, Radigue's erasure from journalistic accounts of the event (as well as journalistic portrayal of Pierre Henry within the boxing ring) resonates with what musicologist Jennifer Iverson has argued concerning collective portrayals of composers within the electronic music studio: "In the cultural imagination and in our writing about electronic music, the studio's composers are figured as clever, independent, and visionary […]. Such intransigent narratives leave little room for women to be appreciated on their own terms in histories of electronic music, for to be admitted into the pantheon of important electronic music pioneers, they can be figured only as the 'exceptions to the rule.'" See Jennifer Iverson, *Electronic Inspirations: Technologies of the Cold War Musical Avant-Garde* (New York: Oxford University Press, 2019), 18.

audible, was silenced by Henry's (non) reaction. Consequently, audience members could not fathom that the assistant had had any creative impact on the radical sounds they heard that night.

This chapter discusses Radigue's unmentioned role during Pierre Henry's performance, as well as the historiographies and ideological assumptions constructed around this avant-garde event.[2] Specifically, I am interested in what Radigue's double presence—audible/inaudible, visible/hidden—reveals about the festival's social and ideological context. I argue that, in addition to Western twentieth-century assumptions about women and technology, the avant-garde context within which Radigue worked at SIGMA further participated in her erasure from journalistic publications. I will demonstrate how following Radigue's traces within the SIGMA archive enables our observations to capture not only what people saw or heard, but also what people decided to see and hear and remember, as well as larger ideologies that shape these decisions. Looking at footage of the audience's reactions as well as at press reviews of the event, I observe points of struggle and acceptance around what was thought to be Henry's sound, and highlight how this confusion brings into question what is needed to be recognized as an avant-garde composer.

The primary source material I use consists of press releases, program notes, video footage and photographs that cover the festival's 1965 through 1967 editions. Focusing on the early years of SIGMA enables me to sketch out some of the founding goals and initial dreams behind the avant-garde enterprise and analyze how these have played out—

[2] While in other chapters of this dissertation I use the terms "avant-garde" and "experimental" to address two interrelated yet opposing practices, in this chapter I use the notion of "avant-garde" in its more generalist sense, to denote something novel, radical, "young", etc. The periodicals on which I am drawing apply this use of the term to the arts, and thus my arguments follow suit.

or not—over a concise period. Moreover, since Radigue participated in the third edition of SIGMA in 1967, zooming in on editions that predate the festival's 1968 hiatus helps orient her presence within the festival's early ideological, financial and sociological context.[3]

In addition to texts by some of SIGMA's main instigators, usually conserved in the program notes of the different editions, my analyses draw heavily on journalistic responses to the experimental festival.[4] An important reason for this choice of archive is that both types of sources (statements by festival organizers and press reviews) witness how different actors participated in defining SIGMA as avant-garde. In that vein, I document the different yet intimately interrelated takes on the SIGMA programming, as well as its general relationship to financial, institutional or popular success. While sometimes slightly different in their tone and in their particular goals, both founding members and press reviews of SIGMA hailed the enterprise as a young, new, and experimental endeavour, and place it at the polar opposite of either bourgeois ideals of tradition, or of more popular "show-biz" aspirations to economic success.[5] SIGMA and its art forms were for the most part constructed as autonomous, and therefore detached

[3] In 1968 the mayor of Bordeaux strongly advised SIGMA organizers to cancel the festival edition because of fear of turmoil linked with the generalized demonstrations. SIGMA 4 was cancelled, and the festival resumed with SIGMA 5 in November 1969. See Françoise Taliano-des Garets, "Le Festival Sigma de Bordeaux (1965-1990)," *Vingtième Siècle, Revue D'histoire* 36, no. 1 (1992): 44–45.

[4] Most articles that are used in this chapter come from leading Bordeaux and Parisian daily newspapers of the time. In order of appearance: *Le Figaro*, *Le Sud Ouest, Le Sud-Ouest dimanche, Le Monde et la Vie*, *Combat, Les nouvelles littéraires, Le Nouvel Observateur, L'information du spectacle, La vie de Bordeaux, La France, Le Monde*, *Le Monde et la vie, Le Havre, L'Aurore*. A few other articles come from more recent publications, and witness how the SIGMA events are remembered.

[5] In a way the SIGMA example confirms Pierre Bourdieu's suggestion that critics of such avant-garde events are committed to fulfilling their function as "discoverers" of the new art forms. Journalists that covered the SIGMA festival were devoted to revealing something novel, and consequently became akin to a spokesperson, or even sometimes the impresario of a given artist and their art. See Pierre Bourdieu, *The Rules of Art: Genesis and Structure of the Literary Field,* (Stanford: Stanford University Press, 1996), 147.

from the demands of more conservative audiences or the market.

With this discourse analysis as a framework, the chapter is further structured around two case studies of the same event. After setting some of the important aspects of the SIGMA festival within the cultural traditions of Bordeaux, I first analyze how Pierre Henry's concert was regarded by the press of the time. More precisely, I observe how such critical responses participated in constructing Pierre Henry's concert—as well as his whole stage persona—as young, bold, and avant-garde. Second, I revisit Henry's concert and look at what can be revealed if one acknowledges Radigue's presence on stage.

Thus, Radigue will only come into play in the second half of this chapter. This might be surprising since this dissertation is, in many ways, mostly about her. And yet this narrative structure enables me to show both sides of the medal, so to speak: the stories constructed around the event as they are usually remembered and accepted, as well as the way Radigue's perspective unsettles truth claims constructed around these same stories.

Thus, in the second half of this chapter, I re-present the same stories, and revisit them by asking some of the following questions: how are the press reviews of the concert understood when reread with Radigue's presence in mind? How are some of the avant-garde assumptions and ideological propositions surrounding Henry's concert reshaped by Radigue's perspective? And, perhaps most importantly, what is it that makes it so hard to speak of Éliane Radigue within an avant-garde context such as the SIGMA festival, and why is it so easy for journalists to completely erase her labour?

Without having the pretence to pin down clear answers to all these questions, I use this chapter to highlight how some of the ideologies found at the core of an avant-

garde definition simultaneously render invisible women and other marginalized actors of the scene. Amongst other factors, the notion of autonomy, which suggests an operational logic constructed in tension with that of the market, as well the related attributes of "youth" and the dismissal of authority that define avant-garde practices take on aspects that have, for the longest time, been used to position (and denigrate) women within twentieth century Western society. At thirty-seven years old and a mother of three by the time of her SIGMA assistantship, Radigue was still the perpetual "little assistant" no one cared to write about. Henry, on the other hand, clothed in a daring red velvet suit, was automatically coined as young, radical, and avant-garde.

1. SIGMA DE BORDEAUX, 1965 TO 1968

1.1. SIGMA Goals

Founded in 1965, SIGMA de Bordeaux, or *Semaine de recherche et d'action culturelle*, was a pluridisciplinary arts festival where technological and audiovisual developments, and even architecture and urbanism were combined to theatre, music, poetry and dance performances, as well as cinema projections and visual arts exhibitions.[6] Until its last edition in the mid 1990s, for one or two weeks in the Bordeaux Fall SIGMA was host to performance companies such as The Living Theater (SIGMA 3 and 11), the Montreal-based La la la Human steps (SIGMA 24) and the Merce Cunningham (SIGMA 13 and

[6] Although SIGMA is written as an acronym, there is no evidence that it stands for something specific. According to post-WWII Bordeaux historian Françoise Taliano-des Garets, the "S" may simply refer to "Semaine des arts," and may refer to one of the festival's aesthetic goals, which was to represent a sum of "all the arts." Taliano-des Garets, email to the author, August 4, 2022.

18) dance companies, as well as an “Elephant Happening” with music by the band Soft Machine (SIGMA 5) [Figure 1].[7]

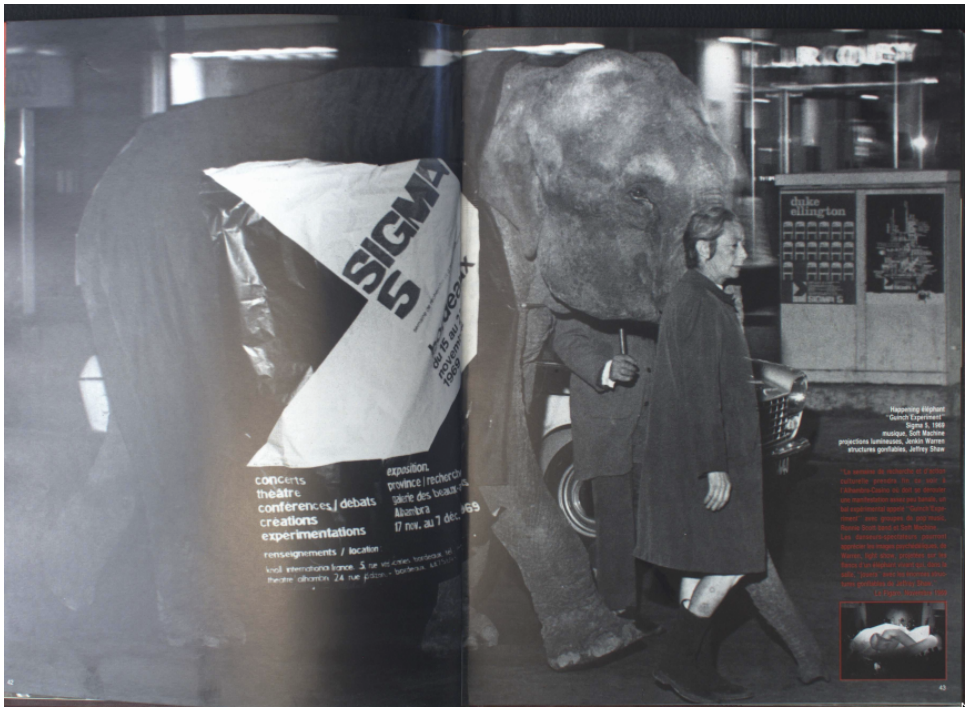

Figure 1. “Happening Éléphant”: An experimental ball called “Guinch’Experiment” with popular music groups Ronnie Scott Band and Soft Machine. The dancers/spectators could admirer a light show by Jenkin Warren, projected on a real-life elephant while the animal, in the Alhambra-Casino hall, “played” with enormous inflatable structures by artist Jeffrey Shaw.[8]

Contemporary music composers Pierre Henry (SIGMA 3, 6, 7, 9, 10 15) and Iannis Xenakis (SIGMA 1, 2, 3, 6, 16) became regulars.[9] In jazz and popular music categories Duke Ellington (SIGMA 5), Miles Davis (SIGMA 7, 9, 11, 18), Jean-Luc Ponty

[7] See Sophie Labayle, *L'aventure d'un festival : Sigma, 25 ans pour une culture visionnaire à Bordeaux*, (Bordeaux: SIGMA, 1990), 43, 49, 105, 125.
[8] *Le Figaro*, November 1969, cited in Labayle, *L'aventure d'un festival*, 43.
[9] “Festival Sigma,” SoundArt database SAET, accessed July 17, 2020, https://joy.nujus.net/SAET/index.php?page=1965sigma&action=&lang=hr. Historian Françoise Taliano des-Garets underlines how critics from the *Figaro* were not necessarily convinced of the purpose of re-inviting artists. They namely deplored, in November 1975, the “disappointing return of the Living Theatre.” See Taliano-des Garets, “Le Festival Sigma De Bordeaux,” 50.

(SIGMA 8) have shared the program with Sun Ra (SIGMA 7) as well as the newly-formed Pink Floyd who, in 1969, agreed to travel south to Bordeaux.[10]

Considering these few examples, it is clear that festival organizers voluntarily did not limit the SIGMA program either to a specific discipline or, as concerns music, to categories such as art, pop or jazz. Rather, according to those in charge of the festival, this apparent potpourri of artistic practices regrouped under one of SIGMA's initial goals, that is, to display up to date "research in all forms of art."[11] Thus, events and artists were invited because their art or their persona reflected, still according to SIGMA organizers, novelty, or (not yet) established experimental approaches to art. As such and especially in its early years, the festival saved an important percentage of its programming for artists and practices that were not yet well known, valued, or consecrated; performers who, in SIGMA co-founder and artistic director Roger Lafosse's words, shared an art that situated itself "halfway between what is accepted today and what will be accepted tomorrow."[12]

To reinforce the significance and the import of such an experimental festival, Lafosse underlined the importance of the "current scientific developments," and its effect on techniques, technologies and, consequently, the arts. In his introductory text to the first SIGMA program, Lafosse wrote:

> Science in the last four centuries has developed more than in the previous 1,000 years; the last 50 years have changed our world views more than the previous four centuries. Science has increased techniques and technology has changed the

[10] Taliano-des Garets, 48.
[11] "Les buts de SIGMA," *Le Sud Ouest*, October 20, 1965. This research goal was also established in Article 3 of the statutes of the association. See Taliano des-Garets, "Le Festival Sigma de Bordeaux," 44.
[12] Roger Lafosse's introductory text for the second edition of SIGMA in 1966. See *Quinze Ans De Sigma : Bordeaux, 1965-1979, À Travers La Presse* (Bordeaux: SIGMA, 1980), 10.

> arts—sometimes creating new forms—where the best and the worst compete, succeed one another or unite.[13]

Such post-War scientific enthusiasm is echoed in press coverage announcing the new SIGMA festival, with articles on composition and the "privileged and irreplaceable role of the electronic computer,"[14] as well as titles such as "Bordeaux at the forefront of culture heralds the revolution of art through electronics." [Figure 2]

Figure 2. Collage of different head titles and punch lines taken from newspaper responses to the first edition of SIGMA de Bordeaux.[15]

[13] *Quinze Ans De Sigma*, 2.
[14] Pierre Petit, "Aimez-vous l'électro Brahms?," *Le Sud-Ouest dimanche*, October 24, 1965.
[15] *Quinze Ans De Sigma*, 3.

Thus, in both Lafosse's discourse on the role of the SIGMA festival as well as in its mediation through the press, "new" art takes its interstitial qualities ("*somewhere between what is accepted today and what will be tomorrow*") mainly by aligning itself with so-called scientific values of research and technological advancement. Or, rather, it seems that such discourse makes use of a somewhat generalist notion of new scientific developments to reinforce the festival's status as an avant-garde demonstration, and to present it as such to the Bordeaux audience. From the festival's inception, "electronic computers" and "research" mark SIGMA as something new, and work as an antidote—or a buffer—against the potential aging of such an avant-garde festival.[16]

Yet, the promotion of scientifically informed art served another function in the ideology surrounding SIGMA. Alongside the scientific-as-avant-garde correlation exposed above, a notion of scientific-as-authentic emerged, again, in both Lafosse's discourse and, consequently, press coverage surrounding festival events. "If we are witnessing a second Renaissance, as some people say," Lafosse states, "it is because the desires of the creators have remained the same, that is, striving to express a reality." He goes on:

> In this loud and passionate chaos […] in this intellectual abundance from which, too often, anguish emerges […] one must strive to demystify, but in order to do

[16] This "new" approach to art as exemplified by the SIGMA festival had a lot of support and promotion from the new Bordeaux mayor of the time, Chaban-Delam, albeit with perhaps different end goals. According to Taliano-des Garets, such a cultural renovation and decentralization were, in the mayor's plan, inseparable from larger economic considerations: the festival must serve Bordeaux, in the mayor's words, "to maintain its role as a major commercial, industrial and cultural metropolis." Through a planned and controlled diversification of cultural activities in Bordeaux by municipal power, the mayor wished to secure the city's appeal as an economic centre. SIGMA thus represented, for Chaban-Delmas, a great opportunity to affirm the image of the new and modern mayor he wished to project, as well as the theme of the "Nouvelle Société" that adorned his activities as a political leader. This would explain his enthusiasm towards the project, as well as his implication and efforts to promote it (he, namely, became president of the festival's administrative board almost soon as the project was presented to him by the artistic director, Lafosse, and his team). See Taliano Des-Garets, 45. Citation taken from *La France*, September 8, 1969. At the time, in addition to his duties as the Bordeaux mayor, Chaban-Delmas was newly appointed Prime Minister under Gaullist President Georges Pompidou.

> so, one must exorcise the paradoxes. Therein lies one of SIGMA's goals. Its few manifestations do not pretend to the name of "festival," for their empirical nature imposes modesty. It is simply an attempt to facilitate exchange between men, ideas and oeuvres. Even if it is but an embryonic sample of the contemporary trends, its existence merits interest; to despise is surely to overestimate oneself.[17]

In sum, Lafosse presented his enterprise as a mirror of the newest experimental manifestations in the arts; as a humble hub of exchange where, putting aside their (mutual?) feeling of "anguish," the Bordeaux audience and experimental artists could share, reflect, and converse. In Lafosse's discourse, new research in the arts as exposed during the SIGMA festivities addressed the realities of its time. If this supposedly new art did raise surprise or even anxiety, it is precisely because it embraced, and was witness to, its own scientifically induced "reality." In the post-War context exposed by Lafosse, science became proof of this "real" art. As such, artists that let their practice be touched by the innovations of their time could thereby be labelled contemporary—and thus authentic—figures. Still following Lafosse's train of thought, this new "true" art would have had the potential to shock precisely because its goals were not shaped by the urge to entertain a given audience. Rather, "true" contemporary artists would have had the honesty and the courage to "express their reality," regardless of whether audiences approved or disapproved of their practice.

Reading between the lines, one can reasonably imagine what Lafosse had in mind concerning art forms that, contra to so-called real art, lured its public with pleasing (and therefore, false) tales. Where "real" art strove to deal with its own time, other art forms merely offered the public what it wished to consume.[18] Indeed, only two years after the

[17] *Quinze Ans De Sigma*, 2.
[18] While in the first SIGMA editions under review in this chapter, Lafosse only covertly distanced his festival from other, more popular or "show-biz" endeavours, he later vehemently attacked such forms of

first edition of SIGMA, Lafosse explicitly addressed the matter and affirmed that: "[SIGMA] is not a festival where everything is designed to please, sheltered in a conformism that guarantees moral and material security […] on the contrary, [it is] a simple nonconformist experience that has, at least, the merit of being courageous."[19] In less suggestive words, Lafosse here sensed the need to reaffirm that SIGMA was no sell-out enterprise and that, contra to other more popular or economically successful cultural manifestations, his festival's program was not dictated by financial profit or public appreciation polls. Accordingly, Lafosse's hands-off attitude regarding contemporary art practises ("a mirror"; a mere hub of "exchange") aligned the festival with the authenticity of the artistic practices that it showcased: if contemporary experimental art expressed reality without attenuating filters, then SIGMA was the genuine mirror of that reality.

Yet, Lafosse's careful tone ("strive to demystify"; "simply an attempt to"; "embryonic sample of the contemporary trends") reveals but another, perhaps constitutive, aspect of the SIGMA initiative. SIGMA meant not only to introduce as many contemporary artistic manifestations as possible; it offered these in Bordeaux, a city renowned for its conservative attitude in general, and towards the arts in particular. Indeed, according to the press of the time, Bordeaux was nothing less than the utmost bourgeois city in France; a place where tradition "with a great 'T'" was the common

art. Looking at the festival's less glorious years, historian Taliano des-Garets has underlined an almost proportional correlation between SIGMA's financial and technical difficulties (starting in the 1980s), and Lafosse's increasing nostalgic discourses. Indeed, in 1979, in a speech underlining the festival's 15th birthday, he complained how "creation is no longer what it might have been only 10 or 15 years ago." In 1984, in yet another SIGMA retrospective, the Artistic Director ultimately lets all hell loose and outright blamed fashion for the "death of the avant-garde." In a heroic gesture, he jumped on the survivalist train and exclaimed that "we [SIGMA] are an outmoded festival and we intend to remain so!" Taliano des-Garets, 51.

[19] *Quinze Ans De Sigma*, 18.

rule.[20] Journalist René Quinson, writing for the Parisian newspaper *Combat* four years after the first iteration of SIGMA, reflected how "one had to be oblivious or have a taste for stupid bets to organize in the most bourgeois city of France, Bordeaux, a week devoted to contemporary arts and trends."[21] Thus Lafosse's "careful" tone in the introduction of the first SIGMA program was perhaps cautious by necessity and meant to call on Bordeaux residents' best tolerant nature. In its first inception at least, SIGMA was imagined by Lafosse as a (gently introduced) wake up call to the dusty Bordeaux.

1.2. Bordeaux 1965: SIGMA Amid Bordeaux Traditions

Indeed, for the period that is of interest for this chapter, the Mecca of Bordeaux's lyrical culture—the Grand-Théâtre—made its ticket sales with Bizet, Gounod and Verdi, as well as with a number of opérettes that proved to be quite popular with a loyal audience.[22] In 1965, jazz and certain types of pop music represented novelty in the city's cultural scenery, with jazz, and especially rock music, admitted only in a few private venues under the disapproving frown of the local press.[23] As concerns festival activities, the Festival du Mai imposed itself (in municipal funding and on the artistic scene) with its "purring culture."[24] Musical and lyrical events took up most of the Mai's program, and consecrated artists were invited. Arthur Rubinstein's performances (1958-1960-1972) were apparently still vivid in some Bordeaux memories; sopranos Teresa Stich-Randall and Elisabeth Schwarzkopf were regulars.[25] It is during the Mai festivities that the Grand-

[20] M.G., *Le Monde et la Vie*, November 1967.
[21] René Quinson, *Combat*, October 28, 1969.
[22] Taliano-Des Garets, *Le Festival Sigma de Bordeaux*, 47.
[23] Taliano-Des Garets, 47.
[24] Taliano-Des Garets, 43.
[25] Françoise Taliano-Des Garets, *La Vie Culturelle À Bordeaux, 1945-1975,* Institut D'études Politiques De Bordeaux (Talence: Presses universitaires de Bordeaux, 1995), 214.

Théâtre audience was introduced to works by Hindemith, Honegger, Schœnberg and Poulenc (who performed in 1952 and 1958); a "brave bet considering the usual conservatism of the public."[26]

In this context, contra to Lafosse's careful tone, the press of the time regarded SIGMA as a moment of "fever," "an explosion," a "torrent," a "cyclone," or, perhaps in a more moderate fashion, as a "refreshing bath that [had], at last, broken with the routine of traditional concerts."[27] A nomadic festival in its early years, SIGMA stormed the streets with happenings, disrupting the quiet humdrum of Bordeaux's quotidian life. For SIGMA 2, against all odds, hundreds of audience members accepted to walk in single file through downtown Bordeaux with a paper bag on their heads [Figure 3 and 4].

[26] Taliano-Des Garets, 224.
[27] See Colette Deman's article entitled "La fièvre monte à Bordeaux," in *Les nouvelles littéraires,* November 23, 1967; Maurice Fleureut's "Bordeaux explose!" in *Le Nouvel Observateur,* November 30, 1966; "Lame de Fond a Bordeaux," Maurice Fleureut, *Le Nouvel Observateur*, November 30, 1966; "Un Cycole à Bordeaux," by Françoise Châtillon, *L'information du spectacle*, December 1967, and "Le concert SIGMA : un bain rafraîchissant qui a, enfin, rompu la routine des concerts traditionnels," by Raoul Parisot, *La vie de Bordeaux,* October 1965.

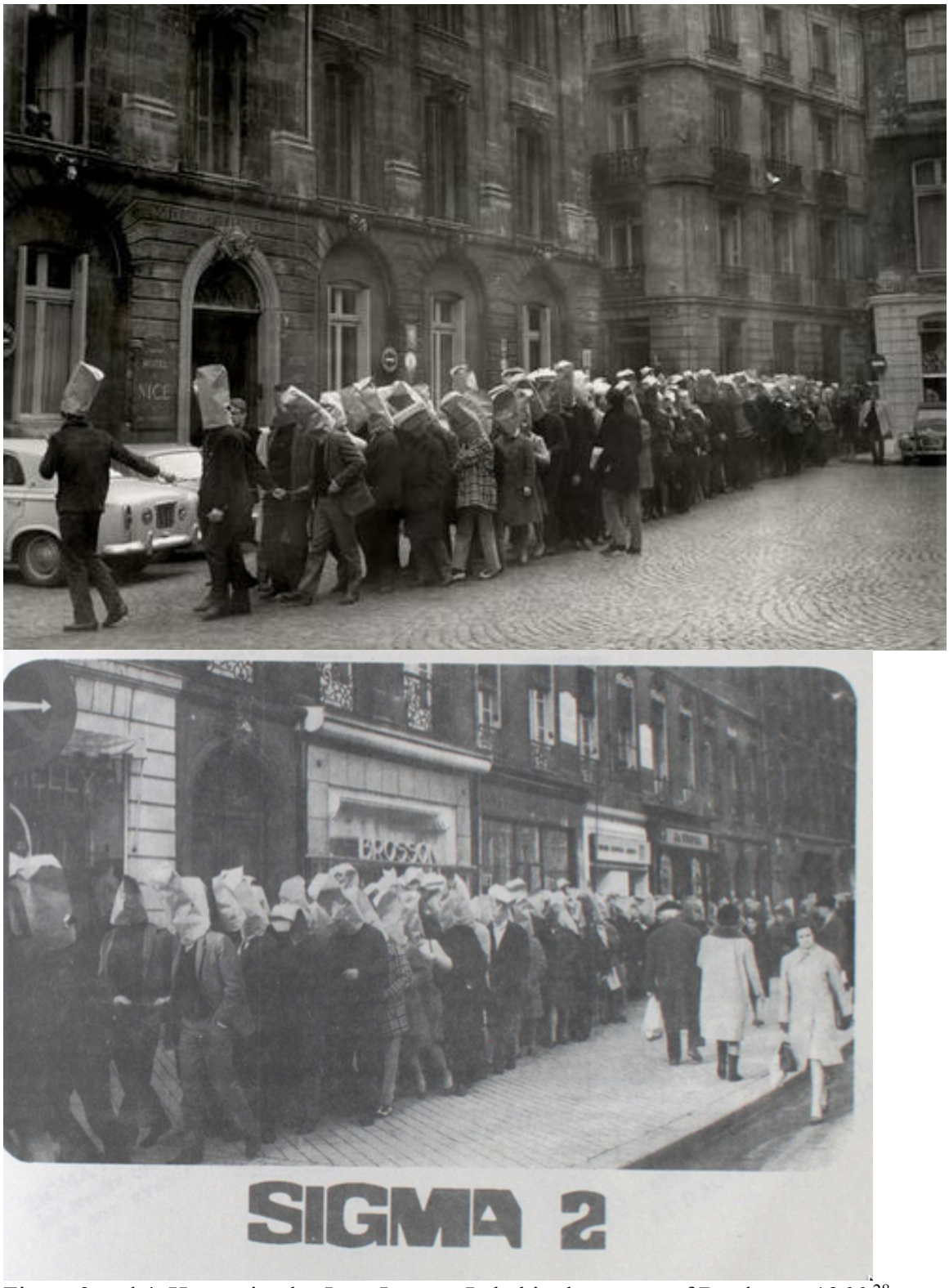

Figure 3 and 4. Happening by Jean-Jacques Lebel in the streets of Bordeaux, 1966.[28]

In the same line of thought, in a review of SIGMA III critic Maurice Fleuret wrote:

> Bordeaux explodes. In six days of adventure, discomfort and questioning, Sigma III has shown, for the third consecutive year, that it has nothing to do with a festival where everything is planned to please. This is not the *Mai* of Bordeaux! […] Under the pressure of an active audience, the old structures and unanimous reports are breaking down. It is a real "cultural revolution" in the truest sense of the word. Bordeaux is no longer Bordeaux; Mauriac and Sauguet would not recognize it![29]

Indeed, the 1967 edition of the festival seemed to offer everything but the conventional. For SIGMA III Sylvano Bussotti made everyone tear up the sets of his *Après, la passion selon Sade*.[30] More than 2,000 people rushed to the Alhambra hall to attend Pierre Henry's *concert couché*, a *musique concrète* performance where, in lieu of chairs, audience members were invited to lie down on mattresses to enjoy the concert. Festival-goers waited hours in line in the cold to get a chance to attend the "Underground American Cinema" event, which they watched, "stoically" according to a critic, from midnight to five in the morning.[31] Brecht's *Antigone* by the Living Theater was so successful that the troupe was granted an extra performance; a second chance to "gallop, crawl in the aisles, blow and spit at the face of spectators in an evident desire to traumatize the audience."[32]

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[28] Figure 3, Archives municipales de Bordeaux, fonds Sigma, 254 S 154/1; Figure 4, *Quinze Ans De Sigma*, 9.
[29] Maurice Fleureut, "Bordeaux explose!," *Le Nouvel Observateur*, 30 November, 1966. The active audience that participated in this "cultural revolution" was not, perhaps unsurprisingly, the *Chartrons* that bought entry tickets to hear Schwartzkopf sing Schubert at the Grand-Théâtre. Rather, in 1965 the new experimental festival appealed to the same demographic that would, in the midst of the 1968 May revolutions, occupy the Grand-Théâtre as a statement against all that the Mai (festival) represented: tradition, and bourgeois art. "Young," "agitated," "bearded and hairy," the 1965 SIGMA festival-goers were the youth of Bordeaux. SeeTaliano-Des Garets, *Le Festival Sigma de Bordeaux*, 49.
[30] Taliano-Des Garets, *Le Festival Sigma de Bordeaux*, 47.
[31] Colette Deman, "La fièvre monte à Bordeaux," *Les nouvelles littéraires,* November 23, 1967.
[32] Simone Perreuilh, "La tribu du Living Theatre à l'assaut du self control bordelais : une Antigone aussi vraie que l'antique," *La France,* November 15, 1967.

The next year, for SIGMA II, 10,000 "starving" Bordeaux residents "rushed to Sigma to find [intellectual or artistic] food."[33] Other critics have qualified this craze of a "rush, a tidal wave, one of those great swells that disrupt the established order and put everything back into question."[34] Indeed, according to historian Françoise Taliano-des Garets, the pre-1968 festival-goers were active to the point of being uncontrollable. For SIGMA III, audience members, "most of them in their early twenties," hurried to the diverse events, "invading the hall for Pierre Henry's concert, both evenings of the Living."[35] Screams and fights have been documented during Bussotti's performance; audience members had to be turned away at Pierre Henry and the Living Theater performances in 1967. In a review of SIGMA III (1967), critic François Châtillon wrote:

> While attendance was expected to be at most 25,000 spectators (compared to 20,000 last year), more than 35,000 came. Suddenly, faced with the onslaught of the most unbridled avant-garde, the very wise and dignified capital of Guyenne deemed it preferable to surrender. Not without having fought valiantly, indeed. The people of Bordeaux, especially the younger generation, lacked neither a critical sense nor a sense of repartee, which meant that the 35,000 spectators in question were not at all restful. There were shouts and even fights. What could be more normal and what better sign of health?[36]

As per the preceding quote, SIGMA activities, in the years of the festival's emergence, successfully proved to the press—and to the new Bordeaux Mayor Jacques Chaban-Delmas—that there existed in Bordeaux "crowds that demand [ed] continued intellectual activity."[37]

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[33] CR, "Le Marathon de Sigma II," *La Vie de Bordeaux*, December 10, 1966.
[34] "Lame de Fond a Bordeaux," Maurice Fleureut, *Le Nouvel Observateur*, November 30, 1966.
[35] Nicole Zand, "Sigma III à Bordeaux: Une semaine d'effervescence," *Le Monde*, November 21, 1967.
[36] Despite the rapidly increasing popularity of SIGMA, especially in its early years, or even SIGMA's initial didactic goal to "inform the largest public possible" and "introduce Bordeaux residents to the most recent creations in the field of contemporary art," SIGMA could not be considered a mass festival. Not all factions of Bordeaux residents were equally present. In 1980 only 5% of the public were employees or workers (ouvriers), while *petits artisants* and shop owners represented 3% of the festival-goers. See Taliano des-Garets, 50.
[37] CR, *La Vie de Bordeaux*, December10, 1966.

As Pierre Bourdieu has suggested, cultural universes such as the one created by SIGMA—however anarchist or libertarian in appearance—exist only thanks to the social mechanisms that surround it and promote its autonomy. Supported by the city's educated youth, the SIGMA "crazy bet" resulted not only in the persistence of the festival, but in its increased funding by the municipal electives. SIGMA quickly replaced the Mai in municipal financial priorities, thus participating in securing the alternative festival's identity as anti-traditional, anti-bourgeois, progressive and consequently (yet paradoxically) autonomous.[38]

Thus, despite Roger Lafosse's claim, in the program notes of SIGMA 3, that the festival "is but a modest and episodic window on the bubbling cauldron" of modern artistic manifestations, its enduring success thumbed its nose to tradition, and thus to bourgeois cultural ideals. In this way, regardless of Lafosse's "hands off" attitude, or claims that the festival acted as a mirror of contemporary artistic practices, the SIGMA programing decisions and its mediation through press coverage actively defined the festival in particular, and avant-garde or experimental artistic practices in general. In essence, the SIGMA of the mid 1960s succeeded in defining itself within the field of avant-garde and experimental practices by positioning itself in drastic opposition to Bordeaux's particularly strong bourgeois ideals of cultural tradition. SIGMA was, and is still, often read as the Mai's antipode. [Table 1]

[38] Perhaps surprisingly, artistic director Roger Lafosse did not seem to be bothered by this municipal tutelage, and by the consequent accusation of leading an elitist festival (at least in the early years of the endeavour). Looking at his declarations surrounding the second edition of SIGMA, one understands that the Artistic Director was much more uncomfortable with an indirect consequence of the municipal funds, that is, with the marked, unexpected and almost instant popularity of his experimental arts festival. In the program notes for this second SIGMA edition, he declared straight out that "the greatest success of the Bordeaux Sigma would certainly be its failure." See Roger Lafosse's introductory text for the second edition of SIGMA (1966) in *Quinze Ans De Sigma*, 10, as well as Taliano des-Garets, 46.

Table 1: Ideals and Facts: *Festival du Mai* versus SIGMA

Festival du Mai pre-1968	**SIGMA de Bordeaux pre-1968**
Consecrated artists and artistic practices;	New, emerging artists and/or artistic practices;
Consecrated works are programmed;	New, emerging works are programmed;
Performances in great concert halls (Grand-Théâtre);	Nomad festival;
Traditional passive audience/ active performer concert practice.	Audience often participates in the performances, or the relationship between performers and audience members is put in question (happenings; active (uncontrollable) audience during performances, etc.).
Conservative audience; tastes align with bourgeois ideals of tradition.	Young, reckless audience; tastes align with risk-taking and experimental practices.
Demography of the audience: bourgeois, co-called "Chartrons," meaning from Chartron, the posh district of Bordeaux.	Demography of the audience: students, with a majority pursuing higher education degrees.
Insistence on traditional and conservative practices.	Insistence on the influence of science on art, on portraying "the new."
Ideal: Showcases a program that pleases its faithful audience.	Ideal: Programming detached / autonomous from audience tastes; Showcases new and "authentic" modern art; art that faithfully reflects realities of its own time.

In sum, in the years of its emergence, SIGMA defined itself through a web of oppositions. Be it by the intermediary of press coverage, or by some of the festival's main organizers, the SIGMA idea was at turns twisted and pulled to forge an identity that was autonomous and radical, despite many contradictory factors. As shown above, SIGMA was constructed through press discourse as an anti-Mai endeavour: the event of the year that would shock and traumatize the old Aquitaine bourgeois out of their pompous sleep. Yet, contra to press reviews, the artistic direction of the festival did not

strive to necessarily shock its audience. Rather, strong reactions to certain experimental events were, in Roger Lafosse's mind, only the consequence of a larger so-called "authentic" approach to art; performers invited to SIGMA did not try to please the audience as much as they aspired to "express [a new, current, and 'scientific'] reality."

2. TWO TAKES ON ONE EVENT

2.1. Case Study 1: Pierre Henry's *Concert Couché*

"Ce n'est pas un concert, c'est une fête"[39]

"Un concert-événement comme il les aime"[40]

Amongst the plethora of reviews written since the beginning of the SIGMA adventure and up to its third edition, composer Pierre Henry's above quoted *concert couché* (SIGMA 3) seems to have granted the Bordeaux press with the ultimate "radical" example to cover. Henry's event was already regarded at the time as a crucial moment in the history of the festival; as a concert that showcased, in a somewhat condensed form, all the ingredients of a non-conventional event.[41] As one critic put it, the SIGMA "catalysis […] took place in an extraordinary Pierre Henry evening, where experimental music suddenly took on a new dimension."[42] One can read numerous accounts of how an essentially juvenile audience raced to the Bordeaux Alhambra concert hall to attend the

[39] "This is not a concert, this is a party." Concert announcement by composer Pierre Henry. See "Concert électronique horizontal," *Le Havre*, November 18, 1967.
[40] "A concert-event the way he likes it." Citation taken from "L'art sonore: l'aventure électroacoustique," INA-GRM, accessed July 20, 2020, https://fresques.ina.fr/artsonores/fiche-media/InaGrm00064/pierre-henry-entretien.html.
[41] What is more, even since the festival's last edition in the 1990s, Henry's concert still figures prominently, and is remembered as one the festival's strong radical moments. See for example Nicholas César, "Bordeaux dans la nostalgie de son Festival Sigma," *La Croix*, accessed June 20, 2020, http://www.la-croix.com/Culture/Actualite/Bordeaux-dans-la-nostalgie-de-son-festival-Sigma-2013-12-02-1069695; Vanessa Morissette, "Bordeaux – CAPC Sigma," esse art + opinion, accessed June 20, 2020, http://esse.ca/en/compte-rendu/81/Bordeaux, as well as the above-quoted INA-GRM interview (see footnote 41).
[42] Jacques Lonchampt, "Au 'Sigma' de Bordeaux un concert révolutionnaire de Pierre Henry," *Le Monde*, November 20, 1967.

festival's most anticipated event. To everyone's surprise, no less than 2,000 people elbowed their way into the venue to hear *musique concrète* pioneer Pierre Henry's electronic tape music.[43] Invading the hall, they found it completely devoid of its seats. Indeed, at Henry's express request, spectators installed themselves directly on the floor on mattresses, pillows, cushions, and blankets that had been arranged to receive this "horizontal audience," hence the *concert couché*. In the middle of this unorthodox setting reigned Pierre Henry from the middle of a boxing ring, all dressed in a stunning amaranth velvet suit.[44] According to a contemporary journalist, for SIGMA 3 Pierre Henry proposed nothing short of a musical experience; a red light shone on this unusual stage, while Pierre Henry, "alone amongst his machines," performed in the midst of his "complicated equipment." [Figures 5, 6, 7][45]

[43] In an *Aurore* article entitled "À Bordeaux: La « Messe Électronique » de Pierre Henry bat Richard Anthony," journalist Michel Grey marvels how Anthony's "unexpected failure" enabled one to "weigh at its exact value the success of SIGMA III." Indeed, while the famous *yéyé* singer had expected around 1500 audience members, a mere 700 hundred showed up. In the meantime, "more than 2000 people met at the Alhambra to listen in its world premiere Henry's 'Messe Electronique.'" *L'Aurore*, November 18, 1967.
[44] Michel Grey, "À Bordeaux: La « Messe Électronique »"
[45] Morissette, "Bordeaux – CAPC Sigma,"; "L'art sonore: l'aventure électroacoustique," INA-GRM; "Concert électronique horizontal," *Le Havre*, 18 November, 1967.

Figure 5. Photography of the boxing ring, with Pierre Henry in his red suit. With him are (from left to right): poet and narrator Jacques Spagagna, Henry's assistant, Éliane Radigue, and visual artist Thierry Vincens.[46]

Figure 6: Photograph of the audience.[47]

[46] Wu Yihuan, "Analyse Scénographique comparée réalisée dans le cadre du laboratoire de recherche Dispositifs scénographiques, la place du spectateur," EBABX/ École d'Enseignement Supérieur d'Art de Bordeaux, http://www.rosab.net/bee/fr/dispositif-scenographique/la-messe-de-liverpool.html, accessed July 23, 2020.
[47] Labayle, *L'aventure d'un festival*, 133.

Figure 7: Black and white photograph of the boxing ring and the audience.[48]

As concerns Henry's music, press readers may have come across a few general descriptions, and have learned, for example, that the evening opened with "clicks of the tongue, clears of the throat, snoring, onomatopoeia," that were "diffused by loudspeakers and organized by Pierre Henry."[49] In one of the rare detailed accounts of the famous evening's music, we learn that these surprising sounds belonged to two of Henry's older pieces, *La Noire à 60* and *Granulométrie*, and that the "violently expressionist side of

[48] D.R. Archives municipales de Bordeaux.
[49] "Concert électronique horizontal."

certain materials, borborygmas, meows, rales, sneezes" favoured a "first exteriorization of the public," who responded with animal cries, various exclamations and laughter.[50]

After Henry's *Le Voile* d*'Orphée* a preliminary version of the composer's *Messe de Liverpool* came next in the program, which opened with the scent of Indian incense. A recitation was heard, "intermingled with the most diverse sounds," prompting "amazement on many faces, while several couples embraced each other on the mattresses."[51] The evening concluded by transforming the Alhambra hall once again, this time into a dance floor. A critic described this last episode as an "outburst of dancing to frenetic rock rhythms and jerks.'"[52]

In light of this brief description of the evening and although audience members apparently did react to Henry's surprisingly experimental sounds, music was most probably not the main reason why the Bordeaux youth was attracted to the event. Other "young" and nonconformist attributes of the evening—such as the boxing ring, Henry's outfit, the "complex" technology used, as well as the opportunity to both lie down and dance at an art music concert—were undoubtedly involved in the evening's success. Henry was aware of this situation as evidenced by his announcement, at the beginning of the concert, that "this is not a concert; this is a party." The composer is also known to have somewhat paternalistically declared, after the "party," that since "many have come to lie down, now that they know what it's like to lie in a theatre […] next time they will come to listen to the music."[53] An audience member summed up the evening perhaps

[50] Jacques Lonchampt, "Au 'Sigma' de Bordeaux un concert révolutionnaire de Pierre Henry."
[51] "Concert électronique horizontal."
[52] "Concert électronique horizontal."
[53] This quote reveals that despite the surprisingly radical setting of his Alhambra concert, Pierre Henry still privileged what could be called a "traditional" ideal listener, meaning a learned, attentive, receptive and passive audience member. On that matter, see Danielle Sofer, "Specters of Sex. Tracing the Tools and Techniques of Contemporary Music Analysis," *ZGMTH* [write out title] *17/1* (2020): 31–63.

even more acutely by exclaiming: “It’s the first time I’ve ever seen flirting during mass!”[54]

Similarly, Henry’s *musique concrète*, it seems, could not be recounted by the press without being intermingled with other, non-musical, aspects of the evening. As already discussed, the music itself is not the only element that prompted critics to hail Henry’s concert as the catalysis of SIGMA’s experimental research goals. First, the *couché* as well as the dance element of the event caused critics to perceive the concert as a reconfiguration of more conservative artist-audience behaviours. In putting the problem of concert practises at the forefront of the evening, Henry was understood by the press as having taken an artistic position on an ensemble of performance issues that more traditional concert organizers took for granted. Through performance practice, Henry positioned himself as a non-conformist, and consequently distanced himself from bourgeois ideals of tradition. Mainly through this denegation of tradition, Henry’s *concert couché* appeared as a new, avant-garde, young, revolution.

Second, as already implied, this “youth” aspect of the event, in critical reviews, limited itself neither to the demography of the audience nor to the composer’s biological age. Indeed, the youth of Henry’s event is more akin to what Bourdieu would describe as the double youth of the avant-garde:

> Inversely to the avant-garde artists who are in some way “young” twice over, in artistic age but also by their (provisional) refusal of money and the worldly importances by which artistic ageing occurs, fossilized artists are in some way old twice over, by the age of their art and their schemas of production but also by the whole lifestyle of which the style of their works is one dimension, and which implies direct and immediate submission to secular obligations and rewards.[55]

[54] “Concert électronique horizontal.”
[55] Pierre Bourdieu, *The Rules of Art*, 150.

In other words, still according to Bourdieu, within the artistic field the opposition between the old "fossils" and youth is homologous to the opposition between bourgeois seriousness or tradition, and the intellectual refusal of this bourgeois seriousness by the avant-garde. Thus, by emphasizing the novelty of Henry's event—through the composer's audacious clothing, his new tech equipment, his surprising position in the middle of a boxing ring—critics participated in defining Henry's art as young, and consequently as non-bourgeois. Henry himself became emblematic of this youth: bluntly ignoring the demands of traditional performance practises that had already paved the path towards consecration and bourgeois audience recognition, the composer's artistic decisions gave him an aura of almost adolescent insolence. Pierre Henry was praised by his critics as a "young" and audacious composer, laughing at the demands of tradition.[56]

In summary, through press reviews, Henry's event was constructed as the ultimate incarnation of SIGMA's experimental ideals; the up-to-date "research" it thrived to portray, as well as the traditional elements it opposed itself to. Journalists' work affirmed the avant-garde status of Henry's concert, and aligned the event with more general SIGMA goals of autonomy and experimentalism.

As such, the "young" and "new" facets of the *concert couché* were put forth. The display of Henry's musical gear, while never described in detail, was abundantly written about, with great insistence on the complexity and the "electronic" aspects of the composer's tape music setup. As with Roger Lafosse's discourse on the importance of

[56] And this "young" aspect of Pierre Henry persisted in press reviews over the years (as previously briefly stated, Henry became a regular guest of SIGMA). At SIGMA 15, for example, the festival invited the Henry once again, this time to celebrate the composer's thirty years of compositional career. Yet, despite the length of Henry's activities, and the honour that comes with such celebratory events, the press still managed to reinvent Henry as young; as a composer "always on the margins." Charles Saint-André, *Agence France Presse*, November 17, 1979.

embracing technology, Henry's "complex machines" were evocative of new scientific research, and this distanced the composer's concert from other events that were subjected to more bourgeois ideals of tradition. Similarly, the drastic rearrangement of the Alhambra hall was understood, still in press reviews, as a blunt and refreshing reimagination of the traditional concert experience.

Yet, the question of the event's incredible popularity still needs to be addressed. As with the pre-1968 SIGMA in general, the infatuation for the festival by the Bordeaux population seemed to have happened somewhat in spite of its artistic organizers. In the case of Henry's concert, this popularity reached its climax, surpassing in attendance even other, non-SIGMA events, such as the one held by successful *yéyé* singer Richard Anthony. Contra to Lafosse's malaise vis-à-vis his festival's increasing ticket sales, the press did not seem at all bothered by the SIGMA craze. Rather, critics used it to prove that Bordeaux was waking up from its bourgeois sleep.

According to Taliano-des Garets, such a cultural renovation was, for Bordeaux mayor Jacques Chaban-Delmas, inseparable from larger economic considerations. The mayor saw in this experimental festival a chance to refurbish the old city, and thereby reposition it at the centre of attractive and (investment) friendly urban centres. Therefore, radical features of the festival were, for the mayor, far from being an end in itself. While, for Lafosse, the ultimate goal seemed to be the liberty and the autonomy of artistic practices within the festival, the mayor had other economic interests.[57] Thus, under the banner of "radical art," both Lafosse and the mayor planned different visions of SIGMA. This disparity resulted in placing the festival in a tight spot between the autonomous

[57] See Taliano Des-Garets, 45

ideals of Lafosse, and the perhaps more mercantile aspirations of Chaban-Delmas; between the independence of artistic choice in spite of a growing popularity and important municipal funding. In this sense, journalists covering the event acted almost as spokesmen and women of the festival, and their reviews often reflected some of SIGMA's ideals as proposed by its Artistic Director, Roger Lafosse, as well as the Bordeaux mayor. Press reviews often promoted both Lafosse's almost textbook ideals of autonomous vangardism, as well as the mayor's more lucrative visions of cultural diversity.

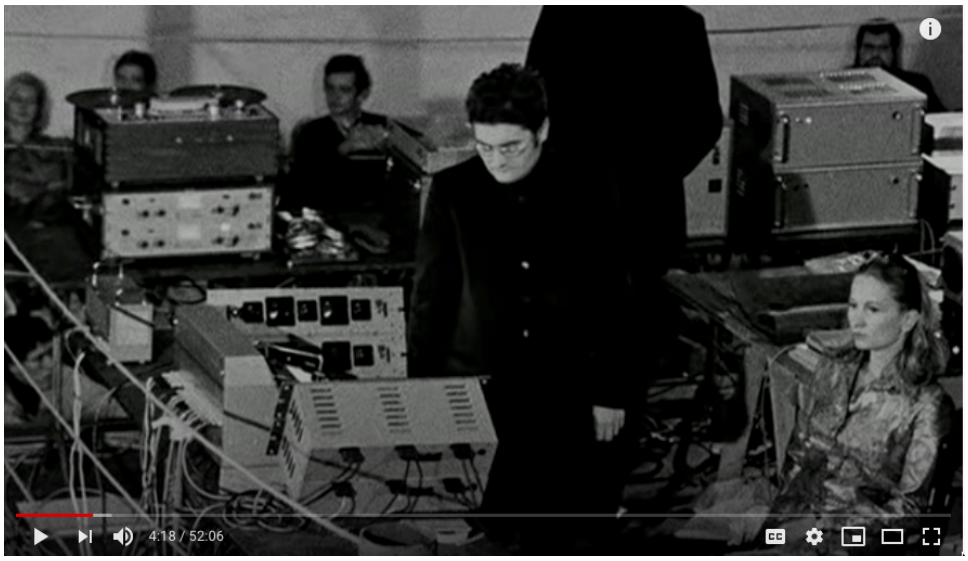
Thus, through press coverage, the success of Henry's evening symbolized Bordeaux's new cultural diversity and critics used this "new" cultural appeal to place Bordeaux and its citizens at the level of other major cultural capitals.

2.2. Case Study 2: Éliane Radigue's Work (While Others Were Lying Down)

Half a century after the *concert couché*, photographs of the boxing ring, of the "complex machines," and footage of the young audience's attitude are bountiful, and fairly easily accessible. Flipping through the SIGMA archival material, as well as through the imposing number of press articles covering the famous Pierre Henry concert, one gets a surprisingly acute sense of what happened that evening. Moreover, one readily understands why such an event proved important for the Bordeaux cultural milieu in general, and for the SIGMA festival in particular. Since review after review speaks of the city's conservative tradition, it is not difficult to grasp why SIGMA events such as Henry's lying-down/dancing-up concert fired up the press, and was crowned as among one of the utmost radical events of the year. Henry and his *concert couché* thus became,

in media discourse, an exemplar of all that is young, new, radical and hi-tech, turning its back to the old bourgeois of Bordeaux, and thumbing its nose to more market-related or "show-biz" events.

Yet, Éliane Radigue's ubiquitous presence within the photographic archive, as well as her complete absence from any press review whatsoever, somewhat troubles the stability of the knowledge produced around the concert. Or, rather, without necessarily contradicting the veracity of the press accounts (people did get excited about Pierre Henry in a velvet suit), Radigue's unmentioned labour hints at the existence of a different take on the SIGMA adventure and poses important questions. For example, I personally thought I knew everything that was worth mentioning about the event until I fell upon pictures and videos of the concert; pictures where someone else, someone who is never mentioned, is visible [Figures 8, 9 and 10].



Figures 8 and 9: Éliane Radigue, then Pierre Henry's assistant, sitting in the famous boxing ring, back straight, eyes fixed, concentrated.[58]

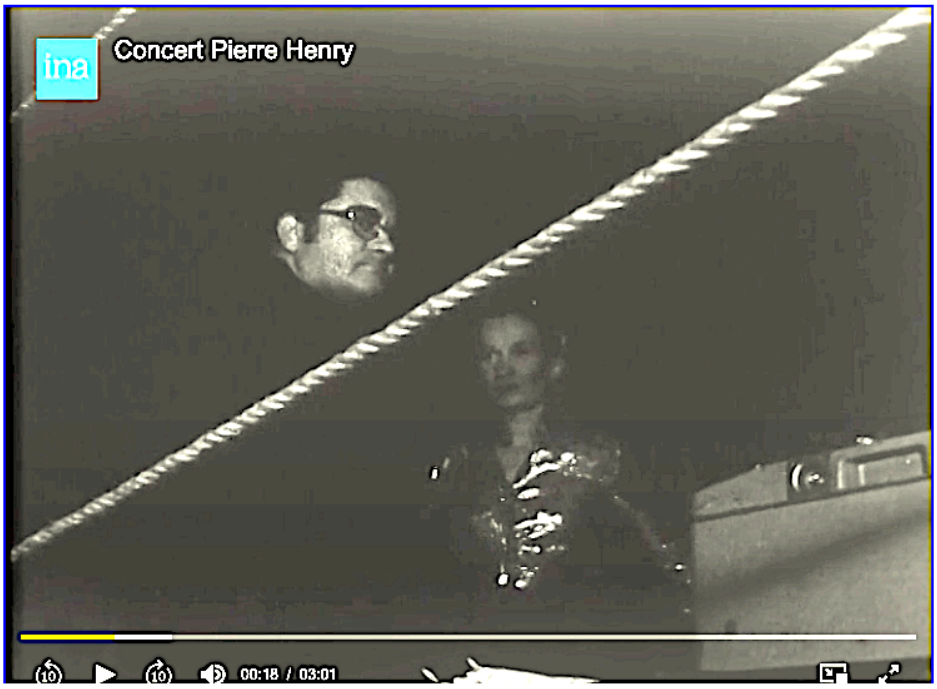


Figure 10: Pierre Henry and Éliane Radigue. We see Radigue next to Pierre Henry through the boxing ring ropes. She is wearing what seems to be a metallic-finished jacket.[59]

[58] 4:15 and 4:18 screenshots of *Pierre Henry: The Art of Sound*.
[59] Screenshot of "Concert Pierre Henry," Ina archive, production of the Office national de radiodiffusion télévision française, video, 3:01.

With such archival material at hand, it is somewhat tempting to try to "save" Radigue as a forgotten figure by rebuilding another, "truer," history. As discussed in the introduction of this dissertation, such an approach would, at best, fail to address the complexity of Radigue's role within the SIGMA festival, and at worst, restrict Radigue's personhood to that of a "victim".[60] Sociologist Avery Gordon offers tools that address these challenges, and suggests that the acknowledgement of figures such as Radigue enables one to revisit traditional archival material. In her words, looking at history through the perspectives of those that have slipped through history's documents is analogous to "entering through a different door […] the door of the fragment, the door of the shocking parallel." Gordon adds that, often, when "entering one place, another often emerges in juxtaposition."[61]

What is appealing about this approach is that it enables one to feel what is missing, but nonetheless present, *within* the main discourse. For instance, if one acknowledges Radigue's work on stage, what do we make of reviews that depict Henry, "the composer, alone amongst his machines?"[62] Such a declaration becomes heavily downplayed when one reads these words from a standpoint granted by the very knowledge that Henry was far from being alone in that boxing ring. At first glance, the statement seems straight out erroneous given other written accounts that testify of Spagagna's and Vincens' presence in the ring. Yet, the error is all the more flagrant when

[60] On another famously forgotten figure of the history of music, see Marian Wilson Kimber, "The 'Suppression' of Fanny Mendelssohn: Rethinking Feminist Biography," *19th Century Music* 26, no. 2 (2002): 113–29.
[61] Avery Gordon, *Ghostly Matters: Haunting and the Sociological* Imagination, (Minneapolis: University of Minnesota Press, 2008), 66.
[62] "L'art sonore: l'aventure électroacoustique," INA-GRM.

applied to Radigue's case: while both poet and visual artists did not necessarily have to operate these so-called "complex" tape machines, Radigue, as Pierre Henry's assistant, was directly responsible for the sounds that emanated from the composer's mixing console. Radigue was, throughout the whole performance, literarily amongst the machines, setting the right roll of magnetic tape at the correct moment, stopping the tape machines when needed, etc.

Moreover, and this time quite ironically, if someone had been "alone amongst [the] machines," it was Radigue who, for uncountable hours before a performance of the like, would spend days on end cutting and pasting bits of tape, and organizing these sounds in preparation for the concert. Often, after these long days alone at the studio, Radigue would be so tired from standing bent over reels of tape that she had to spend the night "with her legs up."[63] Needless to say, these complex machines held no secrets from her.

In brief, Radigue was far from being merely *present* in the famous ring: her actions, and her clear mastery of the machines that mesmerized the press, clearly aligned her labour with this "new" aspect, so cherished by journalists of the event.

Yet, while that in itself would be enough to pose questions regarding what it takes to be regarded as avant-garde (questions to which I will come back later in this chapter), Radigue's interventions at the *concert couché* took surprisingly bold liberties that by far trespassed her responsibilities as an assistant. During the evening, in addition to her assigned tasks, Radigue modified one of Henry's pieces.

[63] Bernard Girard, *Entretiens avec Éliane Radigue*, 41.

In a 2015 interview she shared—forty-eight years after the festival's third edition, while laughing and joking, and reflecting on the "SIGMA anecdote"—how she had decided, in that moment, in the boxing ring, to let the tapes play.

> Éliane Radigue: Ah yes! This was at the very beginning, when I started working with him [Henry]. Oh yes, but now, if someone had done this to me, what I have done to him, *alors là*! And, I must say that if he had done it, I would have bowed my head quite humbly, because … oh! The assistant shouldn't take such liberties! He had written a piece for two tape players, on two tapes, with small [musical] elements—silence between each—and before each element, I had to reset the tape players at the beginning, reset the starting point. And I thought that was completely silly. I thought it was a lot more beautiful to let the tapes play! He had of course, well, he broadcast all this live, as it was. And what's more, he never told me anything, and I will never know if he was in such a fury that … [laughs].
>
> Interviewer (Evelyn Gayou): Because it completely changed his piece! Instead of having things that are well structured, well framed…
>
> E.R.: Oh well, of course! It was very short, the elements were two or three minutes long, and all separated … it was a succession of little pieces, and all the sudden it became a continuously sounding piece. And this, *oh là là*! If someone had done this to me! But I liked it better that way!
>
> Interviewer: So it was more your music—you like continuous sounds…
>
> E.R.: Yes, that's it, yes.[64]

Taking advantage of the precariousness of a live setting, Éliane Radigue had decided to let the tapes play. Henry's work, which was initially composed of short, discrete sound segments, well defined by an alternation with sections of silence, was transformed into a

[64] "Interview Éliane Radigue," interview by Evelyne Gayou, July 21, 2015, video, 1:04, 57, https://www.youtube.com/watch?v=_pMbfa-zNGY. Although this anecdote seems to be a one-timer in Radigue's assistantship with Henry (she did not, to my knowledge, interfere with Henry's music in this way again), it is not the first time that one "heard" Radigue's work in a Pierre Henry piece. In a recent interview, Radigue shared how she "contributed to various pieces [by Henry] without anyone knowing it. It happened that Pierre Henry would include one of my edits in a piece he was working on, because we all did the montaging together, but working on my own ideas was out of the question." See Julia Eckhardt, *Intermediary* 70–71. Perhaps ironically, such non-recognition of labour was the main reason leading to Pierre Henry and Pierre Schaeffer's now historically famous quarrel: Henry ultimately felt like he was doing all the work, while Schaeffer would keep the privilege of signing the finished piece. Again, see, *Intermediary Spaces*, 71.

music made of continuous sounds, without any cuts or silences—an aesthetic far closer to what would later become Radigue's signature style than that of Henry's virtuosic sonic jumps and jolts. Radigue's gesture, which broke the silences and through which Radigue became somewhat audible, was rendered inaudible by Henry's own silence on the matter. Moreover, since for a Bordeaux audience (which included its cultural journalists) the pieces performed that evening were probably a first hearing, it would have been almost impossible for any of them to notice Radigue's interference.[65] Thus, for years to come, the audience that had attended the event and the press that covered it could not possibly imagine that the assistant had had anything to do with these surprisingly radical sounds.

Although as seen the music in and of itself did not figure amongst the highlights in press reviews of the evening (few mentioned the titles of the pieces performed, and fewer even described the quality of the music), Radigue's bold gesture enables an analysis that, once again, encourages us to revisit certain aspects of the SIGMA archive. For example, when it is written how "Pierre Henry proposed a musical experience," one cannot help wondering for whom exactly this was an experience: for the audience? For Radigue? Or for Henry, who most probably did not expect his music to be altered live, without notice! To what level was the performance "a concert-event the way Pierre Henry likes it"?

At this point in the analysis, one could justly accuse me of indulging in small intellectual games. This could be a fair criticism if these micro semantic analyses did not

[65] *Le voile d'Orphée 1* was premiered in 1954 (Paris, Théâtre des Champs-Élysés) and was released by Philips in 1969 (Philips 33 1/3 rpm 836,887); *La noire à soixante*, in its joint version with *Granulométrie,* was premiered in at SIGMA 3, as was the *Messe de Liverpool* (which was not quite premiered at the Alhambra, but rather presented in a preliminary version). See "Œuvres/dates" in Pierre Henry's entry on the IRCAM'S base de documentation sur la musique contemporaine (b.r.a.h.m.s) website, accessed July 21, 2020, http://brahms.ircam.fr/pierre-henry#works_by_date.

lead to questions of a broader scale, namely about the social meaning of this semantic instability within the historical context of the festival. What does it mean to have more than 2,000 people attend the concert, and still not mention or acknowledge Radigue's presence on stage? What does this say about the festival's ideologies? What did these audience members see, hear, and remember? What to make of these memories when the source of what they hear is somewhat different than that which they thought they knew;[66] when the source of the sounds captured is multiple, as opposed to "the composer, alone amongst his machines"?

2.3. Revisiting the Avant-Garde

As mentioned in the introduction of this chapter, in this part of the dissertation I do not have the pretence to provide clear answers to each of these questions. What is more and as I have insisted throughout this chapter, journalistic reviews of Henry's performance are not necessarily false. As is almost always the case with reports, each critical response to the *concert couché* gives but a partial testimony of the famous event. Critical reviews are thus not erroneous: they are, by their very nature, incomplete.

Yet, as a whole, the corpus of written discourses produced around the event strikingly shares a common shortcoming: they all fail to mention Radigue's evident work on stage. While it would have been extremely difficult for a Bordeaux audience and the critics to pick up on Radigue's "liberties" (when she let the tapes play), they could not

[66] Ironically, this gets very close to what Pierre Schaeffer (with whom Pierre Henry founded *Musique Concrète*) called reduced listening (when one cannot identify the source of a sound heard). This type of listening opposes itself to causal listening (when one can identify what produces the sound), and was thought to be an ideal mode of listening, one that could "disrupt established lazy habits and open up a world of previously unimagined questions for those who try it." Michel Chion, "The Three Listening Modes," in *The Sound Studies Reader*, ed. Jonathan Stern (New York: Routledge, 2012), 51.

have failed to see her labour on stage: picking up rolls of tape, placing them in the correct tape machine, listening and watching for Henry's cues, and the like. Why is it that Radigue is never mentioned, not even briefly as is sometimes the case with the other artists on stage, Vicens and Spacagna?

The short answer is quite simple: Radigue is a woman. As scholars have by now thoroughly documented, Western twentieth-century representations of technology-related scenes have increasingly depicted men's participation as inherent and natural.[67] Women's labour consequently appears as either exotic and eternally novel (when the woman happens to be the centre of the action); or they are remembered—if at all—as mere amateur bystanders of technology. Radigue, in her voluntary assistant role, presented nothing exotic or newsworthy for a 1967 French journalist; she represented the perfect exemplar of the eternally amateur female technician. Radigue's role was understood as natural, and evidently not one journalist thought to include her in the headlines.

While I highly suspect that SIGMA 3 critics wrote their reviews with such erroneous assumptions in mind (there is nothing "natural" about women's voluntary work as technical assistants), I am more interested in understanding Radigue's erasure specifically within an avant-garde context. Accordingly, I use the remaining section of this chapter to reflect on how avant-garde ideologies, in addition to the above-exposed women-and-technology assumptions, further encouraged Radigue's erasure from the written archive. For critics of the time, Radigue was not only a woman who operated complex machines; she was an assistant in an avant-garde performance. I pose questions as to why, at the SIGMA festival, it has been so easy for critics to forget to mention the

[67] Ruth Oldenziel, *Making Technology Masculine: Men, Women and Modern Machines in America, 1870–1945*, (Amsterdam: Amsterdam University Press, 1999).

person in the centre of the boxing ring, in clear view, sitting with her shiny jacket directly next to the composer and star of the evening, Pierre Henry.

As a quick reminder, critical responses to the Alhambra event corresponded to a larger view of the avant-garde as expressed by SIGMA's most important instigator, Roger Lafosse. For example, in Lafosse's discourse, journalists hail technologically informed art as proof of the "youth" of the festival's activities. In both Lafosse's and press rhetoric, technology refers to up-to-date post-War innovations and "research." This logic consequently works as an antidote to the potential "ageing" of the avant-garde SIGMA festival that would, unquestionably, link the festival with more bourgeois, and "old" ideals of tradition. In other words, in this avant-garde logic where one can condemn "a tendency, a current, a school, by arguing merely that it is outmoded," technology acted as SIGMA's trump card:[68] how could SIGMA get old, when it merely reflected the latest scientific innovations?

Moreover, this privileged link with technology saved the festival and its activities from accusations of "selling-out" to the demands of either popular or bourgeois tastes: if many people ended up appreciating SIGMA, it was but a happy coincidence. Using technological developments as an avant-garde flag and far away from public tastes, the festival claimed to reflect only the newest innovations in art.

Seeing the importance of the technological trope within definitions of SIGMA, why could Radigue not be labelled by the press as part of this avant-garde? Would her evident mastery of the "complex" equipment not directly position her as part of this "young" endeavour? Moreover, although press reviews never mentioned Radigue, in

[68] Bourdieu, *The Rules of Art*, 125.

interviews she has often spoken (not without a touch of irony) about her role as the "little" assistant.[69] As such, it is not a stretch to hypothesize that the audience—as did other composers working in the field—considered Radigue and other female assistants as "*petites*." Similarly, and this time in regard to the avant-garde's ambiguous relationship to money or other forms of financial success, it is important to note that Radigue's work as Pierre Henry's assistant was done on a completely volunteer basis.[70]

In a way, by situating but a few of Radigue's financial, social and technical positions within the boxing ring, one can easily draw connections between Pierre Henry and his assistant. From different perspectives (one acknowledged by the press, one unmentioned), both appear as young masters of technology, and their labour is understood as somewhat detached from the financial demands of the market. Yet, despite these similarities, within the SIGMA festival Henry appears as the avant-garde star, whereas Radigue is completely silenced.

Transposing vanguard qualities from the stage to the domestic sphere gives a hint as to why such a disparity takes place. Indeed, as the main actors of the domestic space, women's role within the post-War French household was, in a strange way, homologous to that of the artist. As many feminists have strived to underline, "women's work" of caregiving and child rearing is too often unpaid or underpaid, and their opinion on diverse matters has historically and politically been equated with that of a child.[71] When

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[69] See for example "Interview Éliane Radigue," interview by Evelyne Gayoun, July 21, 2015, video, 1:04, 57, https://www.youtube.com/watch?v=_pMbfa-zNGY.

[70] Again, although the audience at the *concert couché* most probably did not pause to think about Radigue's financial compensation for her work, one can assume that a woman doing voluntary work within the avant-garde artistic scene was not a surprising affaire. On women's consistent erasure specifically with regards to technology-related milieu, see Ruth Oldenziel's *Making Technology Masculine*.

[71] In scholar and activist Silvia Federici's words, one of the most important contributions of feminist theory and struggle is "the redefinition of work, and the recognition of women's unpaid reproductive labor as a key source of capitalist accumulation. In redefining housework as WORK, as not a personal service but the

transposed to the home, however, the ideology of youth, the complete absence of monetary compensations for labour, as well as women's experience with new (domestic) technologies lose all their potential as radical or avant-garde triggers. Rather, these factors cling to the women's identities to the point of seeming natural and ensure that their role is maintained within the private sphere to which they "belong".[72] When transposed to the stage and applied to male avant-garde composers, these "domestic" qualities are subject to the greatest vanguard celebrations: Henry is young, and his art is novel. Yet, Radigue's female body on the (public) stage of the Alhambra still harks back to the "naturalness" of women's invisible labour within the private sphere. As a result, Radigue is unseen. In other words, as with many other women working in the field of contemporary art music at the time, Radigue could, perhaps ironically, easily have been adorned with the avant-garde badge. Yet, on her, such vanguard propositions take on their "domestic" powers, and prevents her work from any form of public acknowledgment.

With these considerations in mind, one can even hypothesize about other aspects of Radigue's actions on stage. For example, her decision to change Henry's piece was, undoubtedly, an affront to Henry's authority. While in Henry's case, bold gestures against established forms of performance practice became a sign of refreshing youth, and actually pushed press critics to review their take on the traditional concert format, would

work that produces and reproduces labor power, feminists have uncovered a new crucial ground of exploitation." Read her talk "Precarious Labor: A feminist Viewpoint," presented at the 2008 Convention Protest, Movement and Movements: In the Middle of a Whirlwind, accessed April 21, 2020, http://inthemiddleofthewhirlwind.wordpress.com/precarious-labor-a-feminist-viewpoint/.

[72] For decades now, this has been part of the goals of a notable amount of feminist scholars and movements: to reveal the deep gendered implications of how labour is experienced and valued. See for example Charlotte Bunch, *Passionate Politics: Feminist Theory in Action* (New York: St Martin's Press, 1987); as well as the above-quoted Silvia Federici, "Precarious Labor: A Feminist Viewpoint."

Radigue's gesture, had it been noticed, have taken on the same "rebel" or "brave" connotation? Or would it have been silenced and dismissed as a childish whim, as I am hypothesizing that Henry did? Would Radigue's actions have been read through the common lens, one that gives "less [credit] to the view of women, who are sociologically inclined to question official (meaning masculine) certainties"?[73]

In summary, on and off stage, Henry and Radigue's actions arguably held the same qualifications of "youth," and all that it entails regarding questions of moral and material autonomy. Yet, while Henry's youth equated his practice with bravura and a novelty that saved his art from both sell-out lures of the market or of other traditional public demands, Radigue's social "youth" within the field is the reason no one mentioned her, and most probably the reason why it was completely "normal" to have the "*petite*" assistant work for free. Indeed, as is perhaps obvious, within the same field of power not everyone is recognized in the same way, and critics are quick to make connections between the value of art and the social hierarchies of the artists regarding, namely, gender. When it comes to press reviews and public memory of contemporary music, the female assistant is readily forgotten. Yet, this only partly explains why it is so "natural" for critics to dismiss Radigue from their accounts; within this field it is almost impossible

[73] Bourdieu, *The Rules of Art*, 326. Also, looking ahead in Radigue's career as a composer herself, such domestic/public dichotomy could partly explain why her music took at least a decade to be considered as such. As was the case with many other female composers at the time, Radigue's music ironically represented all that was considered autonomous: until quite recently, her works received no forms of consecration—either financial or moral—apart from a few enthusiastic encouragements by a very niche group of fellow experimental composers. Yet, in Radigue's case this did not result in avant-garde praises by the press. Rather on the contrary, Radigue had to confront the SACEM (the equivalent of ASCAP) to have her music recognized as music, period. Éliane Radigue, "Morning Concert," interview by Charles Amirkhanian, KPFA-FM, November 21, 1980, audio, 1:53:23, https://archive.org/details/MC_1980_12_11/MC_1980_12_11_A_ed.wav. Interview conducted in preparation for the premiere of Radigue's electronic piece Adnos II at Mills College. See chapter one of this dissertation for a more extensive discussion on the topic.

to speak about Radigue in avant-garde terms and come to the same "results" as with Pierre Henry, for these very terms have, for the longest time and still arguably today, participated in blocking women from contemporary music scenes.

3. CONCLUSION

This chapter has analyzed interrelated ways in which different actors of the SIGMA festival have participated in defining it as avant-garde. Especially in its early years, declarations by SIGMA initiator Roger Lafosse have been thoroughly documented and repeated in press coverage of SIGMA events. Notions of autonomy, which implied the festival's divorce with either demands from more traditional bourgeois audiences or from the market, were amplified by enthusiastic journalistic reviews and punchy headlines. This resulted in a general understanding of SIGMA events as a forever young, new, and radical enterprise.

Yet, within this echo chamber of avant-garde definitions (between the press and the festival's organizers) resides another, perhaps underlying, actor. Important assumptions about gender, while not openly expressed in critiques of the festival, also participated in avant-garde definitions of SIGMA. Or, to be more precise, both notions of gender and the avant-garde have participated in defining one another. As my analysis of Radigue's (non) reception has shown, assumptions about who gets to be a participant in the avant-garde scene, and how such art is valued and remembered, are based on larger sociological opinions regarding gender and professionalism. For example, in post-War France, the display of "complex" technologies such as the ones used in Pierre Henry's performance were increasingly defined as both avant-garde and male, thus relegating

non-male identifying participants to the world of amateurs. Henry was defined as the headmaster of the tape-machine playground, while Radigue, despite her obvious work in the boxing ring, stayed on the "bench," out of reach from journalistic reviews.

Furthermore, in addition to such Western twentieth-century definitions of gender and technology, Radigue's position within the early SIGMA social context helps understand how broader definitions of the avant-garde have specifically "helped" her erasure from journalistic archives. Attributes of youth (and its consequent detachment from money) that are often used to define female activities in post-War France are, in avant-garde art, constructed once again in terms of autonomy and maleness. Both Radigue and Henry are eternally young, yet this label clearly does not have identical repercussions: Henry, as a young and radical artist occupies both centre and margins. Such male ubiquity is, as seen through Radigue's case, a heavy impediment for women—and other non-male actors—of the field.

In sum, revisiting SIGMA 3 through a perspective informed by Radigue's presence highlighted the precariousness in which knowledge claims surrounding definitions of avant-garde composers and their art are embedded; a glimpse of how—perhaps—the complex system of permission and prohibition, in which notions of power and visibility are intertwined, functioned.

CHAPTER 3. Domestic Objects, "Third" Spaces, and "Alternative" lofts: Éliane Radigue's Trips to the New York Downtown New Music Scene

While in the second chapter of this dissertation I sketched out some of the debates surrounding the ideology of the avant-garde, this chapter zooms in on domesticity: on its participation in defining the role of the experimental music composer, and its interrelated artistic output. Similarly, while in the previous chapter I followed Radigue's traces in Bordeaux's SIGMA Festival archive, here I revisit the 1970s downtown New York loft scene through Radigue's standpoint.

Specifically, I highlight how scholars and music critics alike tend to use the notion of domesticity to delimit the value of a given artistic practice. For example, in contemporaneous concert reviews of the loft scene, or in more recent scholarship on the topic, domestic objects and ambiance are rather celebrated and put forth to prove the radical or alternative qualities of a given musical event. In an effort to distance experimental music practices from both high modernist and commercial art, composers and music critics of the New York experimental music scene have thoroughly made use of the domestic trope.[1] The casual domestic atmosphere of the experimental music venue—complete with beds, thrift sofas, and kitchen apparel—marks experimental music practises as occupying a radical "third" space, somewhere between the formalism of the concert hall, and the noisy nightclub.

In this chapter I argue that within this discourse, women's artistic contributions can never be fully addressed. As will be illustrated later in this section of the dissertation,

[1] Although the focus in this chapter will mainly be on American experimental music practices and venues, one can think of Pierre Henry's "bring your own mattress" performance mentioned in the previous chapter.

one of the main reasons why it is difficult to speak about female artistic labour within such experimental contexts is that women, and especially white, middle-class or so-called bourgeois women, have been bonded historically and practically to the domestic sphere of the household. Keeping this in mind, my main goal in analyzing the presence of domestic tropes within these scholarly and journalistic publications is to understand the level at which such discourses have impacted women's participation in the contemporary music scene. In other words, I scrutinize how the aforementioned domestic (and, therefore, gendered) discourse surrounding contemporary music practises affects women on the scene. I take Éliane Radigue's experience and perspective to revisit these discourses, and conclude that, for the most part, such a tacit "domestic rhetoric" has participated in erasing female composers' artistic contributions to, or even prevented their participation in, experimental music scenes.

1. CONTEXT

In October 2017, I came across composer Phill Niblock at a sold-out Éliane Radigue concert at Issue Project Room, an old Brooklyn bank transformed into a concert space.[2] Before the concert started, the host of the event announced that although Radigue could not make it to New York for health reasons, the (then) 86-year-old Parisian composer and electronic music pioneer was "here in thought, with her friends."

Indeed, many members of what Radigue calls her "musical family," along with other younger fans, came to hear her music. The experimental art administrator Mimi

[2]"Works by Éliane Radigue: Carol Robinson &Rhodri Davies/ Laetitia Sonami" (Brooklyn, NY: Issue Project Room, October 20, 2017).

Johnson gave a very succinct and light-hearted speech, nodding at the presence of some of her friends in the audience, namely at 78-year-old performance artist and tape music composer Annea Lockwood and at the director of Experimental Intermedia Foundation (EI), Phill Niblock.[3]

At the sound of the names of these important figures of American experimental music and of the New York downtown new music scene, many audience members stretched their necks in an effort to get a glimpse of the iconic composers. Needless to say, the sight of all these (fairly old) musicians all coming together to hear a friend's concert—a friend with whom they had, for the most part, performed in the 1970s in some downtown loft—endowed the event with something impressively noble, and very touching.

During intermission, I made my way to Phill Niblock, whom I had interviewed during his last stay in Montreal. After greeting me in his usual colloquial way, Niblock, remembering that I was writing about Éliane Radigue, made sure I was aware that "his old friend" (Radigue) had been amongst the very first composers to perform at his downtown loft in the early 1970s.

Indeed, Radigue had played at EI shortly after the loft's very first edition of "A Week of Composers," a humbly titled experimental music series that started on December 9th, at 9PM, with a symbolic $1 admission fee. Between 1970 and the early 1990s, Radigue would fly from her home studio in Paris to New York in order to perform either at Phill Niblock's loft on 224 Centre Street or at The Kitchen. After having played

[3] Experimental Intermedia Foundation is often referred to as EI, or more colloquially as Phill's or Niblock's loft. All appellations will be used in this chapter.

her pieces only once or twice in the lofts' informal settings, Radigue would take the large reels of tape on which her electronic music was recorded, pack them into their boxes, and fly back with them to her Paris apartment.

The process would repeat every three years or so, at her own pace, whenever a work was ready, or whenever she felt like it. Given that her homeland's institutions of music dissemination welcomed neither the experimental features of her music nor her status as a woman composer, Éliane Radigue found refuge in the welcoming and colloquial atmosphere of these American loft spaces.[4]

[4] This unwelcoming aspect of French institutions will be discussed in a later part of this chapter.

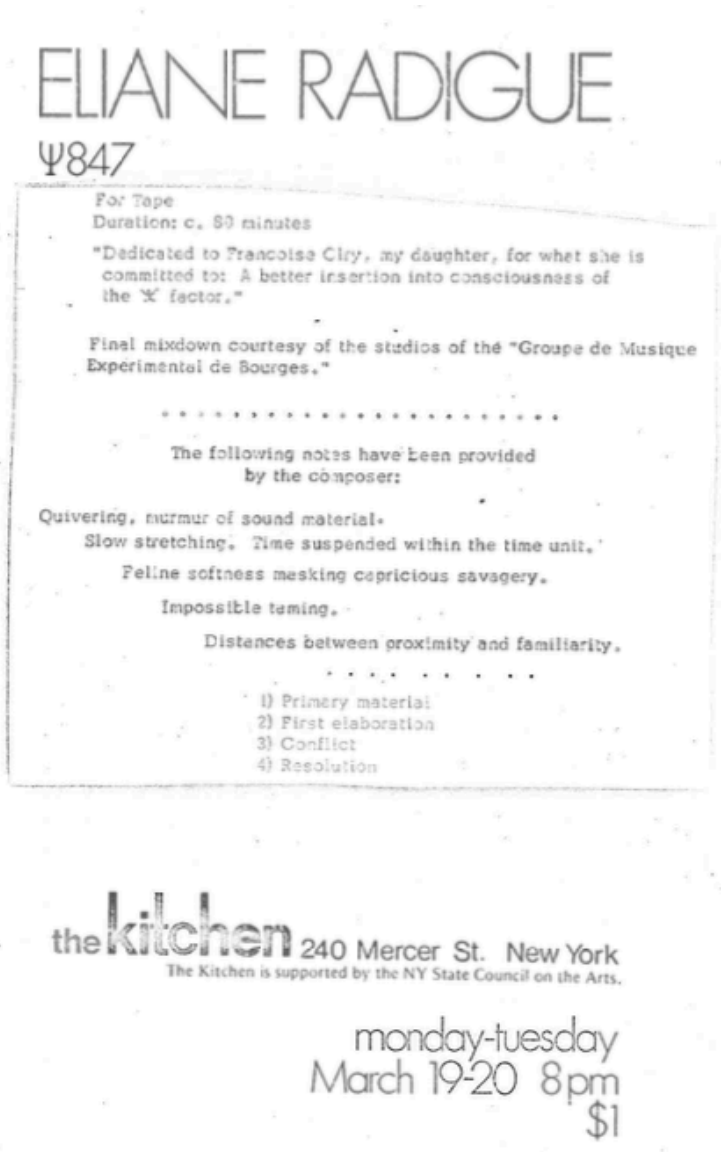

Figure 1. Press release of an Éliane Radigue concert at the Kitchen on Mar 19–20, 1973.[5]

Many scholars and music journalists have similarly commented upon the informality, the welcoming atmosphere and, most importantly, on the friend-based or domestic-like aspects of the New York experimental music lofts, especially in their early

[5] "Éliane Radigue," The Kitchen Archive," accessed April 6, 2017, http://archive.thekitchen.org/?s=radigue&x=0&y=0.

years. Such accounts—which are not devoid of some nostalgic twang—usually emphasize the flexibility of time planning, the ridiculously cheap cost of events, food and drinks, the heteroclite thrift furniture, and the proximity and laid-back attitude both of musicians and audience members.[6] As discussed previously, domestic objects in this context are often read by scholars as an indicator of the loft's status as a "third space," somewhere between the commercial demands of nightclubs, and the formal restrictions of the high-art concert hall. [7]

While I do acknowledge the new modalities of performing, listening and networking that were afforded by loft spaces at the time (namely for female experimental music composers), this chapter questions the notion of the "third space," and problematizes the way domesticity is expressed by scholars and music journalists when reminiscing the downtown experimental music scene.[8]

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[6] See Gendron, "Experimental Intermedia," and Arthur Stidfole, "Experimental Intermedia," in *Phill Niblock: Working Title*, ed. Yvan Etienne, and Xavier Douroux, (Dijon: Les presses du réel, 2013), 469–508; Tom Johnson, *The Voice of New Music*; Michael C Heller, *Loft Jazz: Improvising New York in the 1970s*, (Berkeley: California Scholarship Online 2016).

[7] "Much like the open studios movement of SoHo visual artists, lofts provided a type of third space, an alternative to the tightly policed venues of high culture (the museum/ the concert hall) or to commercial enterprises that seemed to underscore financial concerns (the gallery/the nightclub)." See Heller, *Loft Jazz*, 135. See also Andrew Howie, "House Music: Why Independent British Musicians Want to Play in Your Living Room," (2012): (Article posted on the musician's website) http://www.andrew-howie.com/UK_House_Concerts_Research_Study.pdf.

[8] Although the loft movement, or artistic appropriation of loft spaces can and has been problematized—Martha Rosler qualifies artists as colonizers in the gentrification of old working-class residential areas as New York's Lower East Side and Laura Belkind states that "despite such expressions of solidarity with the local working-class, and despite positioning themselves as activists or bohemian outsiders, the motivations of many artists who moved to the Lower East Side were essentially middle-class. By contrast, the very opportunities that attracted them in the area, to own property or to start small enterprises, were beyond the reach of most of their neighbors"—this is not exactly what I am interested in discussing in this chapter. My focus is on the ways in which the ambiance or general mood of events taking place in the lofts is *recounted* and *remembered* by critics, journalists, musicians and scholars. See Martha Rosler, "Culture Class: Art, Creativity, Urbanism, Part I," *e-flux journal* 21(2010): 7, http://www.e-flux.com/journal/21/67676/culture-class-art-creativity-urbanism-part-i/ ; Lara Belkind,"Stealth Gentrification: Camouflage and Commerce on the Lower East Side," *Traditional Dwellings and Settlements Review* 21, no. 1 (2009): 26.

Focussing on Experimental Intermedia and The Kitchen's early years, in this chapter I investigate such notions by following Éliane Radigue. While I do not necessarily document the details of her performances in these concert spaces, I do investigate how her status as a woman composer might challenge the ways in which we usually remember the loft new music scene. Specifically, I argue that like many other women that participated in the loft scene, not only was the path between Radigue's apartment and Phill Niblock's home-venue somewhat paved, but these so-called "domestic third spaces" were practically the *only* venues in which she could perform her music. In this sense, for female composers like Radigue, "alternative spaces" were not alternative in quite the same sense as for other (white) male composers. Therefore, nostalgic scholarly and journalistic renderings of the loft era's "domesticity," I argue, and the notion of choice embedded in the third space, are symptomatic of an analysis that limits itself to an assumed masculine sensitivity.

By an assumed masculine sensitivity, I do not mean to point at analyses or reviews written by male authors about male participants. Rather, what I mean to underline is the way most reviews of the lofts treat domesticity as if it were a radical aesthetic *choice*. When addressing a time period when women composers were still almost unheard of, reviews that put forth this notion of choice—which inevitably encloses some kind of liberty, some kind of freedom to move from one private sphere to another public one—offer the reflection of a masculine privilege. In this sense, this masculine sensitivity that I wish to uncover is not even directly related to the male composers who participated in the loft scene. I wish to ponder and underline how music

reviewers and scholars understand, remember and recount the loft era through a masculine privileged lens.

Indeed, while most male composers and participants in the loft experimental music scene can justly be read as having made an aesthetic statement by performing their music away from mainstream or high art venues, in an "alternative" or "third" space, it is important to remember that women did not necessarily have the same luxury, at least not in the same way. What happens if we reconstruct events at the loft venues through a woman's sensitivity? What happens if we revisit stories about Experimental Intermedia and The Kitchen through Éliane Radigue's memory?

Reading the downtown lofts era from Radigue's perspective, I argue that the domestic affordances of loft spaces take on radically different meanings. Moreover, I use this chapter to emphasize what is at stake when the privilege of an assumed male perspective, one that allows for the unquestioned romantic qualities of domesticity, fails to be acknowledged.

While I believe a focus on a masculine perspective does not form a mode of oppression in itself, its romantic take on the domestic aspects of the lofts participates in the erasure of other modes of oppression that have relegated women to the domestic sphere in the first place. Furthermore, it risks obscuring the labour and modes of resistance of female composers who creatively reappropriated domestic spaces and, in Radigue's case, whose stubborn aesthetic desire repeatedly drove her across the Atlantic, just so that her music could be played once or twice, for her American family.

2. CRITICAL REVIEWS OF THE NEW YORK LOFT SCENE

In a 1972 article reviewing what is now considered as one of EI's founding events, music critic and composer Tom Johnson, writing for the *Village Voice*, described how Niblock's concert was not held at The Kitchen as planned, but rather that the audience was spontaneously "transported to the composer's spacious loft on Centre Street, where wine was served and the atmosphere was very casual." [9] Indeed, Niblock's home was first utilized as an alternative performance venue for the Kitchen. Between 1972 and 1973, three Kitchen-sponsored events almost accidentally took place at 224 Centre, one of which was due to "the masses of dried animal blood on The Kitchen's floor after a Hermann Nitsch performance," in deference to which Johnson and the rest of the audience were pressed to move quickly to Phill's loft. [10]

Despite this last-minute change, the response to Phill's loft, with its "large, open living space," and its "informal 'house concert' atmosphere" was overwhelming, inspiring the composer to consider the 224 Centre as "something greater than just his own home and studio." [11] Today, Phill Niblock's loft is considered as having been "the humble home to some of the most innovative minimalist music in the late 20th century"—all that due to a strange and somewhat ludic event surrounding a few inopportune specks of blood on The Kitchen's floor. [12]

Perhaps to The Kitchen's benefit, Johnson had the tact not to mention anything

[9] Johnson, "June 8, 1972: Phill Niblock: Out-of-Tune Clusters," in *The Voice of New Music*.
[10] Gendron, "Experimental Intermedia," 473.
[11] "Experimental Intermedia Archive in DRAM," accessed April 21, 2020, http://www.dramonline.org/labels/experimental-intermedia-archive
[12] "Experimental Intermedia Archive."

about dried animal blood in his review in the *Village Voice*. His comments rather stuck to an enthusiastic description of the casual mood of the evening, underlining how, since no performers were needed to play Niblock's tape music, the concert could have been tiresome had it taken place in a formal concert situation, "but in an atmosphere like this it was quite enjoyable." [13]

In January 1974, a few years after his first experience at Phill's loft and in a yet even more enthusiastic review of the state of New York's new music scene, Johnson (still writing for the *Village Voice*) hailed the city as the "most important centre for new music in the world." [14] Comparing its quick and increasing bourgeoning of musical activities to Paris of the 1920s, he stressed how composers coming from London, Rome, and Berlin were equally impressed at the adventurousness and the diversity of the scene:

> There must be almost twice as many new music events in New York this season as there were only a couple of years ago […] In December alone, according to my computations, 15 concerts of experimental jazz and free-form improvisation were given, not counting the weekend events at Studio Rivbee. There were seven one-man concerts oriented toward electronics, seven all-contemporary concerts by different chamber groups, two all-Cage concerts, a marathon of new music […][15]

Moreover, Johnson linked this sudden increase in quality and quantity of musical events to the simple fact that many composers were working in town at that moment, going to each other's concerts, talking shop, learning from each other, developing a healthy competition, and by ricochet establishing higher and higher standards: "The energy is

[13] Johnson, "June 8 1972: Phill Niblock: Out-of-Tune Clusters".
[14] Johnson, "January 3, 1974. New Music: A Progress Report," in *The Voice of New Music*.
[15] Johnson, "January 3, 1974."

contagious, so everyone does a lot of work, outsiders move to the centre to be in the swim of things, and everything snowballs."[16] In the scope of a few years, New York had become a very attractive hub of artistic exchange and concert opportunity for experimental music composers.

This new appeal, according to Johnson, was primarily due to the mood entailed by the type of spaces in which the concerts took place and were organized:

> Places like the Kitchen, WBAI's Free Music Store, the Cubiculo, and a variety of lofts, churches, and galleries provide performance spaces at no cost to the artists, and with an unprecedented degree of artistic licence. At such places no one will tell composers or groups that they have to be finished by 11 p.m. because of union regulations, or that they must submit scores to a committee, or that they must guarantee an audience of so many people, or that they cannot write for such-and-such instruments, or even that they have to keep their clothes on […] If things continue the way they are, a number of important composers and a whole era of valuable musical literature will soon emerge from New York's current boiling pot of off-beat musical activity.[17]

It is clear that Johnson here considers loft spaces as having played a chief role in the liveliness and health of the New York new music scene. But more than their physicality, it is the malleable affordances of those spaces that enabled the scene to attain the level of diversity and experimentalism that is described by Johnson; the scene was radical because it was casual. Experimental music artists whose ambitions had been restrained and frustrated by the financial or aesthetic demands of more conservative venues like the concert hall and academia, or the nightclub, found refuge in the openness, and homelike casualty presented by the loft scene. Lofts afforded artists with the space needed to

[16] Johnson, "January 3, 1974."
[17] Johnson, "January 3, 1974."

perform their works, and work out their ideas in an inviting environment filled with other artists.

Writing many years after Johnson's 1974 Ode to New York, musician and producer Arthur Stidfole echoed the *Village Voice* critic in that such spaces offered musicians from all around the world an opportunity to come to New York, get decent technical help, a dinner with fellow artists, a concert in front of a small but interested audience (often composed of other artists), a good chance of getting press coverage, and an after-concert party with ample opportunities to network and build artistic relationships.[18]

Remembering his time spent at Niblock's loft, he recounts how concerts were usually preceded by a dinner cooked in the kitchen by a handful of EI's members or guests. Taking shape around 6PM, early audience members were invited to the table to share a pre-concert meal which "whatever the intended cuisine" was often "merely a vehicle for garlic."

> Wine of incalculable awfulness was served in the early days (Tom Johnson described it forgivingly in the *Village Voice* as "*très ordinaire*") […] Concerts were usually over by 10:30 or so, after which audiences stayed to talk to the artist and amongst themselves, with the evening wrapping up by midnight or 1 AM.[19]

Similarly, in a chapter on the genesis of Phill Niblock's loft, scholar Bernard Gendron reminds the reader that while in retrospect these loft spaces have justly been qualified as

[18] Stidfole, "Experimental Intermedia," 493. Bernard Gendron, writing about EI, observed that often times the audience was made up of fellow musicians and composers, or close friends thereof: "On average, the audience might consist of 15-20 personal friends, 15-20 musicians and artists, a handful drawn by Niblock's mailings, plus a few critics or arts administrators." See Gendron, "Experimental Intermedia," 475.
[19] Stidfole, "Experimental Intermedia," 492.

"pivotal […] in the flowering of New York's Downtown new music scene" of the 1970s and 1980s, close inspection reveals that, especially at the time of their emergence, both the Kitchen and Phill Niblocks' loft were just that—someone's loft.

> One walked in at 9 PM—rather late for the typical new music concert—plunked down a minimal $2 contribution in the unsupervised basket, imbibed free wine from screw-top gallon bottles and milled around with others until the concert began unannounced some 15-30 minutes later. Those who came much earlier were oftentimes invited into the kitchen for a meal or a bowl of soup along with the evening's performers and other associates. [20]

In sum, what we get from Johnson's, Gendron's or Stidfole's reviews is that the casual, the homelike or domestic aspects of loft spaces are remembered or recounted as having greatly participated in the emergence of a music scene. Stories about cheap wine and garlic dinners, communal food making and sharing, flexibility of programming, and collaboration between music venues occupy a surprisingly prominent space in narratives surrounding the emergence of both the Kitchen and Experimental Intermedia.

Moreover, if the scene and its actors are recounted as having pushed the boundaries of more traditional music venues such as the concert hall or the nightclub, it is the home-like or domestic aspects of the lofts that are remembered as having made this pushing of boundaries possible in the first place. Again and again, carpets, fireplaces, bowls of soup, wine, sofas, and a casual atmosphere come up as important elements in reviewers' descriptions, and these domestic objects grant to the loft spaces something at once inviting and progressive. In other words, domestic objects and habits participate in

[20] Gendron, "Experimental Intermedia," 479.

blurring the boundaries between public and private space in people's memories of the lofts, and this confusion between the home and the venue is what is hailed as radical, as offering something different from, and more liberated than, other traditional music venues. Above many other factors, domesticity is remembered as a marker of the lofts' status as an alternative, as a third space.

3. EMERGENCE OF THE LOFTS—PLACE, SPACE, SPHERE

Place is security, space is freedom: we are attached to the one and long for the other.

–Yi-Fu Tuan[21]

In his study of the emergence of musician-run lofts in 1970s New York, jazz scholar and musicologist Michael C. Heller offers a method to further analyze this notion of the third space. Reconstructing the affordances of loft spaces through artists' memories, Heller argues that the attractive "power" of empty industrial spaces had much to do with how they lent themselves to a reimagination of space "as a blank slate, an empty canvas that allow[ed] for the creation of new types of experiences."[22] Differing from other contemporaneous or later marketing (bourgeois middle class) real-estate discussions that rely on an aesthetic of "industrial nostalgia," Heller argues that musicians did not care much for the lofts' textile origins. Quoting sociologist Sharon Zukin, Heller claims that a significant aspect of this divergence in perception (between artists and so-called

[21] Cited in Heller, *Loft Jazz*, 133. Drawing on the geographer Yi-Fu Tuan, Heller argues for a qualitative difference between space and place. In this chapter, I problematize such categories by suggesting that the "freedom" of *space* as applied to loft spaces is largely dependent on the "security" of the domestic *place*.
[22] Heller, *Loft Jazz*, 133.

bourgeois industrial "nostalgics") revolves around issues of class privilege. While according to Zukin, "only people who do not know the steam and sweat of a real factory can find industrial space romantic or interesting," Heller states that many artists came from decidedly working-class families.[23] For artists, then, the appeal of these "huge square room[s] with only two sets of columns and a lot of empty space" was their potential for completely new appropriation. Musicians came together in loft spaces to "try new things."[24]

It is with this element of potentiality, or affordance, that Heller defines space. Drawing on Michel De Certeau and on geographer Yi-Fu Tuan, he exposes the distinction between *space*, and *place*. Whereas place encourages a way of thinking that focusses on fixity—a set of objects at a specific moment in time, "the home that sits on a lot, filled with sofas, appliances, family photos, and the like"—space is defined as opened, abstract, as inspiring "movement, transition, and the changing relationship between objects."[25] Space is not found in "comforts nestled into the familiar," but in the "opportunities enabled by the new."[26]

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[23] Sharon Zukin, *Loft Living: Culture and Capital in Urban Change* (Baltimore: Johns Hopkins University Press, 1982), 59. While issues of race and class privilege would need to be addressed when speaking simultaneously about jazz musicians' background or new music composers' background, in this specific section of his book, Heller broadens the discussion, and refers "not only to the jazz lofts, but to the larger phenomenon of transforming old industrial spaces for residential use." While interviews collected for his book are predominantly from jazz musicians and jazz loft organizers, Heller states that his goal is "to situate their efforts within a broader discussion about the meaning of place and space in the 1970s New York." Heller specifically writes about this aforementioned wave of industrial nostalgia, and cites visual artist Richard Kostelanetz to underlines that while "the presence of artists made SoHo loft living seem romantic […] lofts posed problems unknown in, say, residential apartments […] For outside onlookers and high-income residents who could afford to pay contractors for repairs or renovations, it was easy to maintain an air of detached romance from the distant specters of industry. But for many artists, these origins were not selling points to be fawned over, but shortcomings to be endured." Heller, *Loft Jazz*, 133.
[24] Heller, *Loft Jazz*,133.
[25] Heller, *Loft Jazz*,133.
[26] Heller, *Loft Jazz*,134.

As spaces, the New York lofts instilled the development of "new performance paradigms that combined the conviviality of the jam session, the sonic reverence of the concert hall, and the politics of self-empowerment."[27] Loft spaces opened the possibility for artists to invent venues that retained the quiet and attentive listening tradition of the concert hall without its aesthetic rigidity, and the laid-back and festive atmosphere of the nightclub without pushy waiters or the distracting sounds of beer taps and people chatting at the bar. In doing so, Heller argues, artists emphasized the "pliability of space," its potential to "devise new paradigms of working, performing, and living."[28]

In order to reinforce his argument regarding the lofts' potential to affect the pliability of space, Heller feeds the readers with an exhaustive list of … domestic objects. Again, as in Johnson, Gendron or Stidfole's texts, we are drawn into musicians' memory, with its reminiscing spiral of soup, communal meal making, carpets and other casual furniture, bedrooms transformed into concert stages, and plenty of moments where artistic exchange and networking around cheap wine go on until late into the night. Usual indicators of domesticity, such as "casually placed divans, chairs and pillows […] a crackling fireplace [near] the bandstand" or the presence of spouses and children and the sharing of food is repeatedly brought forth to sharpen the lofts' borders as neither concert hall nor nightclub.[29] Heller's argument, then, is in line with other accounts that portray

[27] Heller, *Loft Jazz*, 135.
[28] Heller, *Loft Jazz*, 135.
[29] "The domesticized reconfiguration of loft venues offered something of an antithesis to the nightclub format: audiences of all ages were welcome […] and attention shifted from commercially profitable styles toward more experimental genres." Heller, *Loft Jazz*, 138.

domesticity as an enhancing element of the lofts' status as an in between, or third space.[30]

In this sense, while Heller convincingly proposes that artists did not care much for the historical *place* of the lofts (i.e., the factory) in their reimagination of lofts as spaces of novel creation, his discussion of domestic tropes (perhaps unintentionally) exposes the dependence of loft *space* on the very objects described in his definition of *place*. Indeed, his (previously quoted) definition of *place* ("the home that sits on a lot, filled with sofas, appliances, family photos, and the like" the "comforts nestled into the familiar") has too many resonances with stereotypes of the bourgeois household to go unmentioned.[31] In light of this similarity of objects, it would perhaps be more adequate to re-evaluate the imagined relationship between place and space, and propose that the domestic *place* (and its plethora of domestic objects) is necessary for the reimagination of the loft as a third *space* in scholarly and journalistic reviews. Or rather, that the fixed domestic *place* (one that predisposes for a way of thinking that focusses on death, according to DeCerteau) is never far in the shadow of the newly hailed radical domestic *space* of loft venues.

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[30] Here and unlike other parts of his argument, Heller draws a distinction between jazz lofts and other loft spaces like the first wave of visual artists in SoHo. He underlines how jazz lofts were not necessarily housed "in structures that would be considered "lofts" in a strict architectural sense [and when] referring to the movement as 'loft jazz,' participants were not simply claiming connection with certain types of space, but with a larger ethos of reclamation, repurposing, and the cultivation of new communities." Heller, *Loft Jazz*, 130. Thus, this architectural distinction, in Heller's argument, reinforces the fact that jazz lofts were easily reimagined into something casual, accessible, and, as I argue, domestic. Concerning this chapter of the dissertation specifically, while I believe that, in addition to architectural distinctions, issues of race and class privilege would need to be addressed to further investigate differences between jazz lofts and, this time, a contemporaneous concert space like Experimental Intermedia, I argue here that the "domestic" approaches to both jazz lofts and Experimental Intermedia or The Kitchen, as well as the new and radical affordability these spaces presented for its users, are striking in their resemblance.

[31] Of course, this is not to say that working-class domestic households did not have such appliances. When I say that Heller's list "resonates" with bourgeois stereotypes, I am referring to an important tendency (starting in modernist literature) to conflate mass-culture, consumerism, femininity, and the bourgeois household. See Andreas Huyssen's "Mass Culture as Woman: Modernism's Other," chapter in his book *After the Great Divide: Modernism, Mass Culture, Postmodernism* (Bloomington: Indiana University Press, 1986), 44–64.

In this light, somewhat similar to the bourgeois middle class's nostalgic and romantic construction of the industrial aspects of the lofts, artistic attraction to lofts' so-called third *space* appears in scholarly or journalistic reviews as depending on a nostalgic and romantic transformation of the domestic *place*. Following this train of thought, while Heller's argument about the non-relevance of industrial nostalgia for 1970s loft artists is compelling, I would argue that his claim about the loft as a "blank slate" is perhaps a little less convincing. When scholars start tracing artists' memories, these apparently "empty" spaces become increasingly filled with an array of domestic objects; the more radical the space is recounted, the more clustered it becomes with chairs, sofas, carpets, terrible wine and garlic soup. Through some kind of alchemy of memory or perception, the same domestic objects that were qualified negatively in their fixed *place* become hailed as radical and as markers of the mobility of the lofts' third *space.*

Some questions come to mind: What do we make of Heller's emphasis on domestic tropes as markers of the lofts' *space*? Is domesticity playing a double role in marking both *place* and *space*? Why is domesticity presented in analyses and memories of loft venues as a radical tool of self-empowerment? How did it merge from fixity and death to mobility and radicalism? Why does it necessarily mark a loft's difference with both high art and nightclub venues?

In order to start answering these interrogations, it is important to pay attention to the domestic-as-place embedded in the domestic-as-radical. For one, notions that conglomerate around domesticity—ones that have historically been linked to the sphere of the feminine bourgeois household—can shed light on the reasons for its translation

into a transgressive tool. Secondly, an acute attention to domesticity, both to its restrictions and possibilities, can help recognize the diversity of modes of creative resistance that took place within and because of an ideological (and literal) confinement of women to private spaces.

It is on this note that I turn to looking at the lofts' affordance from another perspective; one granted by a female artist who has historically and practically been attached to domestic so called "places"—also known as the feminine bourgeois domestic sphere—and for whom the *place to space* alchemy that is characteristic of other male reconstructions of the loft era's domesticity cannot possibly take on the same connotations.

To be fair, Heller's discussion does touch upon the matter. Recounting reporter Susan Mannheimer's experience at a jazz concert in a loft, he underlines how, again, markers of domesticity appear in her discourse to reassess her "own feelings of safety as a woman attending a jazz concert." [32] He goes on:

> Although the account does little to transgress conventional gender roles (femininity remains tied to domesticity and the family, for example), it does imply that the lofts' blurring of the home/gig binary subtly began to undermine the gendered meanings affixed to particular types of spaces.[33]

Thus, Heller acknowledges how it is precisely the more private feel of the venues that positively impacts women's performances and participation in loft venues. And yet, if domestic tropes are revealed to be very powerful in disrupting the usual (public/private)

[32] Heller, *Loft Jazz*, 141.
[33] Heller, *Loft Jazz*, 141.

lines drawn by more conventional music venues (creating through this disruption a whole new space for creativity), the argument falls a little flat when it comes to disruption of gender biases and inequity. For one, it reveals in bright light the notion of choice and privilege that is inherent in the utilization of domesticity as markers of an alternative, or third (or pliable, if you will) space. In less suggestive terms, it speaks to the fact that people who are homologically bonded to, and literally stuck in, the domestic sphere (i.e., middle class bourgeois woman) could never have been as easily remembered as presenting domesticity in a disruptive fashion. On the other hand, white male composers who could arguably have performed their music in either high art venues or in the nightclub, but who have *decided* to present themselves in a domestic environment, are remembered as having made an aesthetic and artistic statement against conservatism or institutionalization of art. Women making soup is unmarked, invisible; it is the ultimate image of the static *place,* the circular repetition taking place within the even more circular walls of the domestic sphere. Male composers making (garlic) soup are written about in the *Village Voice*, by scholars, in books and academic journals, and are hailed as a marker of disruption, as the gesture through which a new *space* is created.

Secondly, I believe Heller's argument about gender leaves such a disappointing taste not because it is necessarily beside the point (I believe to some extent loft spaces were more welcoming to women composers), but rather because it limits itself to what I will call a "disruption" analysis. From the vantage point granted by the male composer, the dominant strategic function of the loft-domestic chain is the disruption of the unsatisfactory institutional or commercial affordances of other music venues. The lofts

and the (male) composers operating in these spaces are remembered as making a statement against the conventional venues in which they would usually be seen by doing something unconventional, that is by being "domestic" composers. When Heller tries to map this loft-domestic chain on the stories of women composers, the resulting analysis hardly affords something close to a disruptive mechanism. Since women composers' exclusion from venues of music dissemination has often resulted from ideological equations between femininity and the domestic sphere, domesticity unsurprisingly resists the *place*-to-disruptive-*space* alchemy when applied to their case. Women often have to do more than stir soup to be written about in cultural papers.

What happens if we just let go of the goal of disruption, and look at the loft-domestic chain through a perspective inspired by a woman composer? Through Radigue's experience, the relationship between place and space connects at very different intersections. Through her memory, we can twist a preceding quote, and propose—to the risk of making an overly dramatic statement—that *only people who do not know the steam and sweat of real confinement to the domestic sphere can find domestic space unquestionably romantic or interesting*.

4. WHOSE DOMESTICITY?

Figure 2. Collage of Éliane Radigue at the ARP 2500 synthesizer. From left to right, Éliane Radigue in 1974, in the late 1980s and in 2004 or 2005.[34]

As previously mentioned in various sections of this dissertation, electronic music pioneer Éliane Radigue would compose—and still composes—all her pieces in her Parisian home studio. Somewhat by necessity, between 1970 and 2001 she almost exclusively worked with an ARP 2500 modular synthesizer, recording seemingly unchanging blocks of sounds produced by the ARP on magnetic tape [Figure 2].

In her home studio, Radigue was met with very different time constraints than that which a more institutional framework entails, which perhaps partly explains how she could afford to spend sometimes up to three years on one single composition. Moreover, since Radigue performed most of her pieces in New York's downtown new music scene, she did not have to worry, as Johnson argues, about submitting scores to a committee, or about securing an audience, or about writing for a specific instrumentation.

Yet, despite this creative freedom, it would be optimistic to state that Radigue had all the time she needed to devote herself to musical creation. In the late 1960s, Radigue was freshly divorced from the artist Armand, and her three children had now reached

[34] Source: Éliane Radigue, "The Mysterious Power of the Infinitesimal," *Leonardo Music Journal* 19 (2009): 47–49.

teenagehood.[35] Radigue thus had to organize her composition schedule between grocery shopping, cooking, helping out with homework, and a thousand other tasks that, as a single mother, she needed to attend to.[36] Taking advantage of every moment of free time, Radigue spent a few years experimenting at home with big Tolana tape recorders—a gift that she had received from *musique concrète* composer Pierre Henry in acknowledgement for one year of volunteer work—after which she decided to fly to America to live her "dream of the electronics."[37]

In New York, she was met with great warmth by other artists who were interested in similar musical aesthetics. It is also in New York that, to her greatest surprise, she was introduced for the first time as a *composer*, an appellation that she had never really considered for herself, and that she actually resisted for some time.[38] It is in this welcoming atmosphere that Radigue started to talk shop. Relying on old acquaintances she had met through her ex-husband, and building new ones in places like Niblock's loft or the Kitchen, she eventually came across composer Morton Subotnick who granted her

[35] After her divorce in the late 1960s Radigue received allowances from Arman, the father of her children, to live and raise the family. Girard, *Entretiens*, 45.
[36] Speaking about the composition of *Usral*, a piece composed in 1969 for Larsen effects and slowed down ultrasounds, Radigue reminisces: "I worked at twenty-three rue de Bourgogne, where I lived with my children, and where I had a little studio in the entrance hall. When the children got home from school, they made fun of the strange sounds" [*laughs*]. See Eckhardt, *Intermediary Spaces*, 90. Translation by Julia Eckhardt.
[37] In conversation with the author, August 2016.
[38] Emmanuel Holterbach, "Un portrait d'Éliane Radigue par Emmanuel Holterbach," Paper, Le Cube, Issy-les-Moulineaux, France, February 7, 2014). Recorded version accessed on September 18, 2016. http://lecube.com/fr/un-portrait-d-eliane-radigue-par-emmanuel-holterbach_2319. In an interview with Julia Eckhardt, Radigue adds " I always said that I accepted myself as a professional musician when other musicians considered me as such. It's true it was in the United States that I had this feeling for the first time, thanks to James Tenney first of all, but also to people like Philip Corner, Malcolm Goldstein, David Tudor, John Cage, Steve Reich, Phil Glass. All of these people who I met in the 1960s were the first to consider my music as music." See Eckhardt, *Intermedirary Spaces,* 109. Translation by Julia Eckhardt.

time in the New York University studios. There, she could reserve a time slot and try out the Buchla Box, one of the first modular synthesizers. It is also during this American stay that, in Radigue's words, she "fell in love" with the ARP 2500 modular synthesizer.[39] Interestingly, despite how much she enjoyed the atmosphere of the New York new music scene, Radigue quickly flew with "him"—the ARP—away from New York and back to her Paris apartment. The beginning of Radigue's work with the ARP marks the dawn of the electronic music phase of her career, comprising over 25 hours of recorded electronic music.

But while in retrospect the 1970s are known as Radigue's active years as a composer, it is important to know that at the time, performing her music in conventional venues was not only outside of Radigue's horizon of possibilities: it was completely beyond all that she could imagine. Indeed, as briefly mentioned in the introduction of this dissertation, for the longest time Radigue preferred to call her works "sound propositions" and resisted calling them compositions or even music. While in the 70s terms like "sound installations" were starting to pop up here and there, I believe Radigue's reluctance to calling her works music is a derivative of quite a particular motivation. Radigue did not refrain from giving her pieces the "composition" label to actively challenge institutional standards and the categorization of music composition: she just had never imagined herself in that position.

[39] In an interview with Tara Rodgers, Radigue exclaimed: "I really fell in love with the ARP synthesizer. Immediately. Immediately! That was *him !*[Laughs]" See Tara Rodgers, *Pink Noises: Women on Electronic Music and Sound* (Durham NC: Duke University Press, 2010), 56.

The exerpt from a 1980 interview between composer Charles Armikhanian and Radigue is helpful in grasping what was at stake for Radigue during the first years of her career as a sound proposition maker/composer:

> Charles Armikhanian: "It seems to me that you and Luc Ferrari, who also lives in Paris, have something in common in your thought pattern, and I wonder if you know him…
>
> Éliane Radigue: "I know him, he is a very good friend of mine, even if we don't meet so often. We are in the same position, like independent composers, which is not the case for most of the composers in Paris… And we don't have such an audience in our own country. For him, he is mostly going to Germany, like I am coming to the United States. When I am done something, I just ask to my friends in the United States: Do you want to hear it! Because I consider that a piece starts to be alive when it has been listened to at least once by other people, other than that it is only a corpse in a drawer!"[40]

Almost ten years after she had held her first performance at Niblock's loft, Radigue shared with Armikhanian the ongoing difficulties of being an independent composer in Paris.

Although it would be beyond the scope of this chapter to address adequately the Parisian institutional tradition, I will state for now that its authority at the time of the interview with Armikhanian, Radigue's compositional career was very much grounded in something close to high-modernist reactionary ideology.[41] In the late 1970s and onward,

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[40] In an interview with the author, in August 2016, Radigue shared: "Then I was traveling, going a lot to the United States, when I benefited from a very first acknowledgement. In France, I did not exist." In Julia Eckhardt's *Intermediate Spaces*, Radigue added "In France, there was little support. There was Michèle Bokanowki […] We share a great friendship and mutual respect. [also] Gérard Frémy and some others. I remember taking part in a collective production with the GERM group [*Groupe d'étude et de réalisation musicale*, not to be confused with the GRM]. I had the feeling I'd absolutely kept up with them, so I thought I'd been admitted into the group. But I learned not long afterwards that there had been a meeting, to which I hadn't been invited, where it had been decided: 'no chicks in the group.' Later, the same people reproached me for having flown solo […] For decades I had no other choice than to fly solo." Eckhardt, *Intermediate Spaces*, 80.

[41] See Georgina Born's "Prehistory," "The Institution of IRCAM," and "Power, Institutional Conflict, Politics," in *Rationalizing Culture: IRCAM, Boulez, and the Institutionalization of the Musical Avant-Garde (Association)* (Berkeley: University of California Press, 1995). It is important to stress that while

with IRCAM as its growing leading figure, the Parisian contemporary art music scene was influenced by its "tacit imperative to absent other kinds of (popular and postmodern) musics," and by its "highly stratified and gendered division of labour."[42] In this very institutional and male dominated context, Radigue was presented with some kind of double dead-end road: while it was difficult for her to find a Parisian audience as an independent composer, it would also have been very hard for her, as a mother of her age producing such experimental sounds, to even enter these formal institutions if she had wanted to. Indeed, in contrast to Ferrari (mentioned in the interview), Radigue carried many intersecting "flaws" according to the Parisian institutional system, had she wished to be part of it. In addition to the aesthetic of her music, Radigue' gender, her motherhood, and her domesticity linked her work to what was—and arguably still is—pejoratively designated as "women's work."[43]

Additionally, very much alike our previous discussion of the downtown music

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Radigue has been composing her own music as early as 1963 (*Asymptote versatile*), most of these early pieces were only premiered in the early 2000s. Radigue started to perform her music more substantially (and gradually considered herself a composer) in the early-1970s. See "Éliane Radigue oeuvres-dates," base de documentation sur la musique contemporaine b.r.a.h.m.s, last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#works_by_date.

[42] Georgina Born, "The Social and the Aesthetic: For a Post-Bourdieuian Theory of Cultural Production," *Cultural Sociology* 4, no.2 (2010): 190–191. As seen in chapter three of this dissertation on Radigue role as the assistant of Pierre Henry, the division of labour (in avant-garde artistic contexts) predates IRCAM in the Parisian music scene and does not limit itself to high modernist institutions.

[43] Jennifer Beth Spiegel underlines how "'women's work' of child rearing and care-giving as unpaid or underpaid" is considered "a service merely to her 'loved ones,' disregarding the services that such work provides to cultures as well as the social basis upon which all other modes of production build." See her article "*Rêve Général Illimité?* The Role of Creative Protest in Transforming the Dynamics of Space and Time During the 2012 Quebec Student Strike," Antipode 47, no. 3 (2015): 770–791. Bringing this to the contemporary music scene, Radigue herself has often shared in interviews the difficulty of crossing the gender line and having her work valued: "To the extent that I could cut up magnetic tape for hours and prepare the lectures that I was going to give about the music and, as long as I didn't aim for anything else, I was very well received." See Eckhardt, *Intermediary Spaces*, 80. This last statement echoes Huyssen, already quoted in footnote 30 of this chapter: "*Berufsverbot* [forbidden from this kind of work] for the muses, unless of course they content themselves with the lower genres (painting flowers and animals) and the decorative arts." Huyssen, "Mass Culture as Woman," 50.

lofts, within Radigue's domestic sphere notions of time, performance practice, and constraints embraced a very different mode of temporality than that which is usually demanded within an institutional, or commercial framework. Where a more public sphere of art music has its specific schedule requirements, strict concert listings, stage capacity, and audience expectations; a domestic sphere does not necessarily carry the same type of temporal requirements. [44] Where a composer linked with an institution will receive commissions and compose with a deadline, for a specific setting and a specific time frame, an independent composer like Radigue, who composes at home while her children were away at school, is most likely to approach time and constraints quite differently. In her studio, without financial restrictions and far from the pressures entailed by institutions regarding instrumentation, aesthetic or duration of specific pieces, Radigue was free to take all the time she needed to compose her exceedingly long electronic music. Her stable financial status as the divorcee of Arman, her duties as a single mother, as well as the fact that for the longest time she did not bother about imagining herself playing in conventional venues shaped her music to become particularly long, both in terms of compositional process and in duration of the pieces themselves. In this light, while Radigue found a way to express herself through domestic spaces, these very spaces, in some kind of feedback effect, further shaped her sound and her aesthetic into these lengthy pieces that give her music its signature style.

But then, and as she mentions in her interview with Armikhanian, Radigue still

[44] See Luke Nickel's "Home is Where the Heart Is" section in "Occam Notions," 32.

felt the need to perform outside of her home, to have her pieces played at least once, lest it risks transforming into "a corpse in a drawer." Every three years or so, she would write a letter to Phill Niblock, pack the roles of tape on which her recorded electronic music piece was stocked, and fly to New York. Niblock and the like would take care of inviting guests, press, and providing whatever was needed for Radigue's performance. Despite her marginalization from the glorified high-art public spaces, Radigue found a way to bypass the impossibility presented to her by Parisian public spaces by finding her way to the so-called "third domestic" spaces proposed by the New York lofts. After all this time spent alone with her ARP synthesizer in her apartment, Radigue would fly across the Atlantic to "test her compositions" at least once on Phill Niblock's nice equipment so that it would be "listened to at least one time by other people." Indeed, due to the extensive length of the pieces and to the impossibility of cutting or editing the tracks without completely changing Radigue's seamless aesthetic, her works could not fit the 20 minutes per side LP format, and thereby eliminated the only means of distribution offered by the music industry at the time.[45] It was only in the 1990s, with the advent of the CD format, that the long compositions of Éliane Radigue were made available to a broader audience. Until then, in order for her music to be heard, Radigue had to physically embark on a transatlantic journey from her home to Phill Niblock's domestic loft.

If I try to limit my analysis of Radigue's transatlantic move or compositional process to "disruption," this chapter would fizzle out. Entanglements between Radigue's

[45]As stated in chapter one of this dissertation, although the compact cassette tape had been on the market roughly since the mid-1960, it is only in the 1980s that the cassette became increasingly seen as a handy way to listen to music (especially in the car), and sales of pre-recorded cassettes increased. See "Not Long Left for Cassette Tapes," *BBC*, June 17, 2005, http://news.bbc.co.uk/2/hi/technology/4099904.stm and Jude Rogers, "Total Rewind: 10 Key Moments in the Life of the Cassette," *The Guardian* August 30, 2013, https://www.theguardian.com/music/2013/aug/30/cassette-store-day-music-tapes.

gender, her class, her motherhood, and an array of other ideological propositions invalidate any attempt towards that direction. For similar reasons, if I had tried to portray her performances in the (more public) spaces of the New York "domestic" lofts as disruptive of institutional practices, my claim would have slipped away the moment it was uttered, leaving a sense that women-performing-in-these-places-are-not-doing-anything-extraordinary.

On the contrary, if I do acknowledge the male privilege of using domesticity as an easy disruptive tool, I can then shift my analysis to address how "different people using the same space [have] different or overlapping ways of understanding city living"—to stop equating women's appearances in loft spaces to partial victories.[46] Paying attention to the movements that emerge from and criss-cross the domestic space in which Radigue is composing we see how, despite her marginalization from high-art public spaces, Radigue obviously did not passively make soup in the domestic so-called *place* of her apartment. Rather, she found a way to bypass the impossibility presented to her by Parisian public spaces by finding an alternative, that alternative being across the Atlantic at Phill Niblock's loft.

As a person bonded ideologically to the domestic sphere, Radigue put these bonds in movement, reappropriated private spaces in a way that fulfilled her aesthetic desires and gave her artistic agency. Indeed, if we follow Radigue's movements from the New York lofts back to her home studio (roughly ten trips between 1970 and 2000), and if we

[46] Alison Young, "Cities in the City: Street Art, Enchantment, and the Urban," *Commons, Law & Literature* 26, no. 2 (2014): 145–161.

imagine the letters, telephone calls, press releases, and later trace the recordings and posters that were initiated by, conglomerate around, and exceed the creation of one specific new Radigue piece, her domestic home studio—in those instances—takes mobile dimensions that by far transcends its physical *place*.[47] Indeed, contra to the "disruption" analysis which tends to romanticize domestic objects in a nostalgic discourse, the "reappropriation" analysis of Radigue's lived domesticity reveals something always in movement, always adapting, reimagined, and actively readjusting to new possibilities.

Similarly, in this light, Radigue (or other women) performing in the welcoming domesticity of the loft spaces do not merely represent a lukewarm step towards emancipation. It is the result of strategic efforts and labour of resistance undertaken by women with a burning desire to perform their music, despite institutional obstacles and ideological restrictions. In a "reappropriation" analysis, domesticity takes a plethora of forms. It is a label that sticks to Radigue's identity and limits her movements; it is a safe space where Radigue can compose for years without time limits other than her children's needs; it is a space where she is welcomed to perform her pieces. If Radigue's relationship with domesticity eludes "disruptive" analyses, it certainly does encompass strategic modes of resistance. Away from "disruption," the domesticity of lofts as utilized by women composers such as Radigue are not recounted as partial and disappointing victories, but rather as complex, long-winded, sometimes almost counter-intuitive

[47] See "Artists Roster 1973 – 2007," Experimental Intermedia, accessed April 24, 2020, https://www.experimentalintermedia.org/concerts/aroster.shtml.

reappropriation.

5. CONCLUSION

This chapter has sketched out the interrelated ways in which scholars, music critics, and composers have made use of the notion of domesticity. As concerns the New York downtown new music scene presented here as a case study, domesticity is added to the wave of enthusiastic reviews or nostalgic memories, and secures the loft's image as a space where radical things can happen. Indeed, domestic objects and actions stick out in reviews of the New York downtown new music scene and participate in defining its feeling or ambiance, as well as broader values of experimentalism.

Throughout this chapter, I have also showed how domestic tropes such as the ones presented in the New York loft reviews strengthen the lofts' status in opposition to both commercial and more academic or traditional forms of art and entertainment. In other words, the domestic aspects of the lofts help define the experimental music practices that arise within them as alternative in the sense that they oppose themselves to other more traditional or conservative ways of distributing and presenting art.

In such rhetoric, it becomes extremely difficult to speak about a composer like Éliane Radigue, namely because of her ties to the domestic sphere. As seen, in such an "opposition" analysis, while a critic such as Heller hails domestic objects and stereotypically home-like actions, he can only recount women's participation within experimental music venues as half victories. The chief issue with this approach is that by

failing to recognize the male privilege of choosing between the loft and the concert hall, women's labour within the domestic sphere is, yet once again, rendered invisible.[48]

Through Radigue's experience, this chapter strove to offer ways of seeing, and understanding the political and aesthetic implications of female composers' artistic labour. Tuning in to Radigue's domesticity as a composer—to the affordances as well as the limits of this situation—helps blur the borders between the home and the political, and raises awareness of the myriad of creative ways in which female artists have navigated their domestic positions.

[48] As stated in chapter two of this dissertation, over the last decades this has been partly the aim of many feminist scholars and movements: to reveal the deep gendered implications of how labour is experienced and valued. See for example Charlotte Bunch, *Passionate Politics: Feminist Theory in Action* (New York: St Martin's Press, 1987); and Silvia Federici, "Precarious labor: A feminist viewpoint," lecture presented at the 2008 Convention Protest, Movement and Movements: In the Middle of a Whirlwind, accessed April 21, 2020, http:// inthemiddleofthewhirlwind.wordpress.com/precarious-labor-a-feminist-viewpoint/.

SECTION 2: Transition Notes

In this second part of the dissertation, which includes chapters four and five, I extend my ethnographic research to analyzing Radigue's current collaboration with, in order of appearance, the Quatuor Bozzini string quartet as well as members of the ONCEIM ensemble [Orchestra of New Creations, Experimentations, and Improvisations]. Specifically, I shift my research from a largely historical and sociological analysis to one that focusses on the performances of specific Radigue pieces by different experimental music ensembles. While this change in tone between section one (Chapters One, Two and Three) and section two (Chapters Four and Five) of the dissertation may seem surprising or even abrupt to the reader, both are built around the same overarching goals. I use the following "transition" section to clarify the tenure of these goals.

First, as briefly mentioned in the introduction of this dissertation, Radigue has been, since the early 2000s, collaborating solely with performers. While many aspects of her musical material remain barely unchanged since the electronic phase of her career (see chapter one), the mere fact that performers have recently been interested in Radigue's work and compositional method speaks to important changes that have occurred within the new music scene.

Indeed, until the turn of the millennium, Radigue had not been able to secure any sort of collaboration with performers, let alone institutions which, as I have described in previous chapters of this dissertation, were beyond her access. Thus, as she has shared in many interviews, electronic instruments provided her with the freedom she needed to compose the music she wanted to create. Indeed, with her ARP 2500, or even with her tape recorders, Radigue could compose at her pace, in her home, without having to deal

with prejudice of the time relating to professionalism, gender, music transmission, and traditional hierarchies within, for example, all-male orchestras.

And yet, Radigue's complete and drastic switch from electronic instruments to collaborations with instrumentalists reveals that this latter mode of music making was, in effect, what she had always dreamt of.[1] As Radigue has shared in many instances, once she experienced this "wonderful gift of sharing […] and making music together," she could not go back to the often-lonesome hours she had spent with her electronic instruments.[2]

Thus, the juxtaposition between the two remaining chapters and the first three chapters of this dissertation is meant to highlight the changing nature of instrumentalists' view of music like Radigue's, as well as, in general, some of the recent changes within the new music scene relating, again, to questions of gender, professionalism, music transmission, and music in general. In other words, these last chapters on the collaboration between Radigue and instrumentalists speak—almost on their own—of changing political, social and aesthetic meanings associated with the conceptual notion of the composer since the beginning of Radigue's career: how it is validated, now and then, and whom it includes and rejects. A deeper analysis of why such changes have occurred is the subject of the conclusion of this dissertation.

Second, in these last chapters, I investigate how Radigue's sound, and more specifically the particular type of listening that her music provokes, continue to challenge today's artistic practices. Here notions of domesticity come into play. To put it too

[1] See chapter four of this dissertation for direct quotations on the matter.
[2] *Sound American*, no. 26 (2021). https://soundamerican.org/issues/occam-ocean/unified-sounding-body.

simply, a corner-stone argument of the following case studies on Quatuor Bozzini and ONCEIM musicians is that that Radigue's music, listening mode, and compositional practice was, and is, to a certain extent, shaped by the "domestic" nature of some aspects of her career. Here, I would like to stress that I do not readily argue that Radigue's art is completely subjected to her status as a woman composer, and to its related material consequence like her difficulty to access more institution-based spaces. And yet, some aspects of her music practice resonate with the predominantly domestic space within which her compositions took shape. As previously discussed in chapter three, I argue that in Radigue's studio notions of time as well as schedule and material constraints (deadlines for a concert; commissions for specific instrumentation) did not affect Radigue's compositions in the same way that it would have had in a more traditional and institutional environment. Consequently, I argue, Radigue had, in some sense, a different type of freedom that enabled her to compose her long and slow evolving pieces.[3]

My ethnography of Radigue's current collaborations with experimental music ensembles enables me to examine how such material and time constraints cross over and impact today's ensembles. Specifically, in the next two chapters, I investigate notions of control, temporality, as well as how Radigue's sound blurs the usual borders between listener, performer, and composer.

[3] Radigue often explains that the premixing and mixing process need for the composition of her tape-recorded synthesizer music was quite tedious. She would first start by doing her sound research, which she would record on many dozens of tape segments (with a different character on each tape). She would then organize them all in mixing onto wide tapes with blanks between each recording. For an 80-minute piece (which was the average length for her synthesizer-based works), when she started the mix, she had to go all the way to the end, without one mistake, or else she had to start all over again. She also sometimes would do premixes with 2 or 3 tapes. A complete piece would rarely be completed with less than 15 or 20 tape segments. The whole composition process (finding the sounds, and the mixing) would take roughly 2, even 3 years of work. As Radigue says herself when reflecting on that period of her career: "It was really an enormous amount of work!" See "Eliane Radigue," IMA Fiction Portrait #04, video, 14:43, 2006, https://www.youtube.com/watch?v=lcy5fLcAsQQ&t=3s.

Third, and this time perhaps closer to the feminist goals that underlie this dissertation, the following two chapters are the occasion to portray Radigue as an active agent of the experimental music scene: how her sound, which she has developed—somewhat out of necessity—with the synthesizer in her home studio, now challenges today's experimental music ensembles, and proposes new ways of listening, of composing, and of sharing music.

In sum, this second section of the dissertation is built, in its goals and themes, around the social and historical components that have been central to the first three chapters. First, it exposes, through instrumentalists' new interest in Radigue's music, a clear change in the general perception of what is valued as a composer. Second, it investigates the connections between Radigue's past history as a solo electronic music composer, and her current work with instrumentalists; how her past experiences with feedback and the modular synthesizer (which let her make music without having to confront, at the time, restricting ideals of what a composer should be) reach over to today's instrumentalists, and challenge and surprise their expectations of what a composer can be, as well as how music can be performed. Thus, in sum, the next two chapters, somewhat in their undergrowth, answer one of this dissertation's main goals: through my ethnography, I highlight moments when Radigue's electronic and instrumental career meet and challenge musicians, thus gesturing towards different—and sometimes conflicting—notions of what a composer can be.

CHAPTER 4. "You Have to Work, but You Have to Work 'Cool'": An Analysis Quatuor Bozzini's Learning Process and Later Performances of Radigue's *Occam Delta XV*

In this chapter, I am interested in analyzing the intersections at which Éliane Radigue's past history as a solo electronic music composer and her current work with acoustic musicians meet. As discussed previously, beginning in 2001, after four decades of solitary work with tape recorders and, above all else, modular synthesizers, Radigue turned to working solely with instrumentalists.

The main question I ask in this chapter is quite straightforward: what does it look and sound like when an electronic music pioneer such as Éliane Radigue collaborates with instrumentalists? And, in a somewhat reverse fashion, how do acoustically trained performers react to Radigue's aesthetic? In other words, I am interested in observing how Radigue's solo experience with electronic instruments now crosses over to her current collaborations with performers.

In the first section of this chapter, I analyze some of the ethnographic data that I have been collecting since 2017 on the relationship that has developed between the Montreal-based string quartet Quatuor Bozzini (hereafter QB) and Éliane Radigue. Drawing on recordings of the first meetings between the composer and QB, as well as on my own field notes and discussions with the string quartet, I document the transmission of Radigue's piece for QB, *Occam Delta XV*, premiered in 2018. In general, I focus on moments where the instrumentalists share how they react to the new or somewhat foreign setup proposed by Radigue's approach.

Additionally on that matter, I ponder the cultural, social, and physical conditions that were privileged by Radigue or QB. For example, I take instrumentalists' virtuosity

(which has been trained and developed in different institutions, in previous encounters with other instrumentalists, through QB's various performance experiences, etc.), and observe how it comes into play in Radigue's sound. The encounter between all these elements necessitates different types of adaptation, or various "games" of modification. It is these games that I investigate in the first section of this chapter.

Starting from these early rehearsals of *Occam Delta XV*, I use this chapter to further investigate QB's listening strategies and mindset during subsequent performances of Radigue's music. While in the first part of this chapter I ask what it looks like when Radigue meets a string quartet such as QB, in the second section I investigate in greater detail how the ensemble adapts to Radigue's musical material in later performances of *Occam Delta XV.* To do so, I present "snapshots" of QB's reactions after the 2018 premiere of the work. Material for this part of the chapter stems from private discussions I had with members of the string quartet over the years, as well as from audio recordings of a more formal presentation by QB on Radigue's music.[1]

Moreover, I take this second part of the chapter to follow QB during a 2021 post-hoc study during which QB shared—this time in written as well as in oral form—their impressions regarding their appreciation of a specific performance of *Occam Delta XV*.[2] The catalyst of this study stemmed from my inability to grasp what, and how QB listened during their performance of Radigue's music. Indeed, after playing *Occam Delta XV*, QB members do not speak about the performance amongst themselves as they would, for

[1] Majeau-Bettez, Emanuelle and Quatuor Bozzini, "Occam Delta XV : Quatuor Bozzini meets Eliane Radigue" (Powerpoint presentation and musical performance, Concordia University, March 25, 2019).
[2] This study took place in a studio at IRCAM (Paris) on November 10, 2021, and, in addition to QB members, it comprised QB's sound engineer, Stephan Schmidt, musicologist Clément Canonne (IRCAM), programmer Aliénor Govet (IRCAM), and the author.

example, discuss specific parameters of the performance of a scored piece. As QB violinist Clemens Merkel shared, "it's not like in a Mozart quartet where you'll say, well, the second movement was a little too fast! [laughs]"[3] Rather, performing Radigue's music, still according to Merkel, is a deep introspective act: "When we play, in some ways we are aware that there are people in the audience, but when we finish it's always difficult to get back "out."[4]

In general, after playing *Occam Delta XV*, QB members do not readily speak about Radigue's music, let alone how they listened or how they felt during the performance. Moreover, from my personal experience, listening to Radigue's string quartet piece also often triggers a state close to meditation. Thus, not only was it difficult for QB members to speak about the piece amongst themselves or with audience members; I also never felt adequate asking questions to the ensemble directly after such an introspective experience.[5]

The format of the post-performance study presented an alternative. The intimate nature of the recording studio, as well as the pacing of the experiment seemed to open a new space for discussion. Moreover, while directly after performing Radigue's introspective music it seems difficult for QB musicians to come back "out" and speak about their experience, the same does not hold true for written form. Indeed, the written questionnaire that the research team and I proposed to the ensemble presented QB members with a perhaps more comfortable post-*Occam Delta XV* medium to express

[3] Majeau-Bettez and Quatuor Bozzini, "Occam Delta XV".
[4] Majeau-Bettez and Quatuor Bozzini.
[5] Discussions with QB too long after the performance have also not proven very fruitful. A few days, or even hours, after the performance QB musicians have trouble remembering what happened. Stéphanie Bozzini, in conversation with author, September 2020.

themselves. Moreover, in addition to the different questions that we asked them throughout the study, the musicians often went out of their ways, and added more comments in the margins. Such an exercise even triggered subsequent oral discussions, and worked as a steppingstone for rich—albeit casual—talk about Radigue's music with the ensemble.

In this chapter I do not present the results of the study per se. Rather, I focus on these peripheral communication points that emerged at different times during the study session. For example, directly after the annotations that I asked her to perform, QB cellist Isabelle Bozzini explained to me how playing *Occam Delta XV* was somewhat like "jumping in a lake" with someone when you know the water might be cold: "Its a question of trust; of trusting the people you're playing with."[6]

In a way, Isabelle Bozzini's comment answers many of the questions that I ask in this chapter. At every performance of *Occam Delta XV*, Radigue's music, for QB, is indeed akin to a lake: always different, always in movement, yet always somehow the same.[7] Radigue's sound material, which she developed through her experience with feedback techniques or the modular synthesizer now crosses over to surprise and to challenge today's ensembles; Radigue's practice continues to enrich the experimental music scene with yet another version of what a composer can be.

1. THE RADIGUE / QB ENCOUNTER

1.1 Genesis of *Occam Océan*

> I was very honoured to receive this request from Quatuor Bozzini, whose immense talent I already knew. The first meeting was very warm, friendly and familiar, like a reunion of old friends after a long separation. The communication, which was very easy, began with an explanation of how to work in this *Occam*

[6] Personal communication with author, November 10, 2021.
[7] Citing *Mon rêve familier* by Verlaine, Radigue often describes her music in such terms. See, for example, Bernard Girard, *Entretiens*, 27.

> *Océan*, an endless sequence, integrating solos, duets, trios, etc., up to an orchestral formation.[8] We envisaged together the meaning, the form, the theme(s) evoked, as well as the particular structure of the work.[9]
> Éliane Radigue

QB first met Éliane Radigue on the afternoon of July 11, 2017.[10] Back in 2016, through mutual friends and colleagues, the ensemble had gotten in touch with Radigue, letting her know about their interest in her music and her compositional approaches.

After a few letters, telephone calls and emails, Radigue agreed to receive the quartet in her apartment, in Paris, for a first three-day rehearsal/collaboration session. Radigue's initial conditions were transmitted to me, and I was responsible for sharing them with QB:

1. The quartet must rent a place where they can rehearse on their own before and between meetings with Radigue;
2. Meetings must be in the afternoon;
3. As the composition of the piece is transmitted orally, the performers should know that recording the sessions is welcomed;
4. Although the goal of their collaboration is the creation of a new piece, there must never be a scheduled performance date before Radigue has decided that the piece is ready to be performed;
5. Although the goal of their collaboration is the creation of a new piece, this goal may not be fulfilled. If Radigue is not satisfied with the rendition of a piece, she will not "sign" the work. If a non-"signed" piece is to be performed, the instrumentalist may say that the piece is inspired by Radigue, but not that it is a Radigue composition.[11]

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[8] The pieces of Éliane Radigue's Occam project are tailor-made for each musician, and each musician has his own solo, called *Occam*. Starting from the combination of these solos, duets (called *Occam River*) are formed, *Occam Delta* for trios and quartets, *hexa* for quintets, and so on until *Occam Ocean* for large orchestra. There are, at the present time (Fall 2019), 27 solos, and already close to 70 pieces formed by this set of combinations. Being the exception to the rule, the QB is not only the only string quartet of the *Occam* project, but also the only *Occam Delta* quartet not built from the combination of solos and duets.
[9] Eliane Radigue in an email to the author (already published in Emanuelle Majeau-Bettez, "Quatuor Bozzini : De L'Audace Underground Et Upperground," *Circuit* 29, no. 3 (2019): 19).
[10] QB members are Stéphanie Bozzini (viola), Isabelle Bozzini (cello), Clemens Merkel (violin), and Alissa Cheung (violin).
[11] Radigue, in conversation with author, August 2016. Quatuor Bozzini's rehearsals with Radigue were a success, and a new piece, *Occam Delta XV*, was premiered in Montreal on June 9, 2018 at the Suoni per il Popolo Festival.

QB members unanimously agreed upon these conditions, and scheduled a meeting with Radigue, in her apartment.[12] Thus, on an afternoon in July 2017, Quatuor Bozzini members were in Paris, meeting Radigue for the first time. While they unpacked their instruments and tested their recording gear, Radigue explained to them the origins and the rules of her latest project, *Occam Océan*.

As per the title of the project, Radigue encouraged the performers to follow (her adaptation of) William of Ockham's razor: "Simplest is always best." Her indications were as follows: if the musicians feel like a section "is going well," they should sustain it. In the opposite situation where, due to any factor, the musicians do not feel comfortable in a given section, they should start a transition to the next section at once. Whatever happens, musicians should not "force" the sound material.

Regarding the structure of the project, Radigue explained to QB members the combinatory nature of the ensemble pieces in the Occam project:

> Éliane Radigue: For the solos, there are now 22, 23 of them […] I have to slow down the production of solos, because, see, there are enough of them! I can show you, here, you see there are already about fifty pieces made [*through the combination of solos*].[13] That's it for the structure. For the story, ah! There is *toute une histoire* [laughter]. Here is the story of Occam Océan…[14]

In the 1970s, Radigue was in Los Angeles. She was finishing a residency at the then-very young Cal Arts, where she had also presented *Psi 847*, her newest work for

[12] For some years now, Éliane Radigue has not traveled due to health issues.
[13] For an up-to-date list *Occam Ocean* premieres, see See "Éliane Radigue Œuvres/effectif," base de documentation sur la musique contemporaine b.r.a.h.m.s, last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#works_by_genre.
The last solo piece (*Occam XXVII* for bagpipe, performer Erwan Keravec) was premiered on September 11, 2019, at the Gesù amphitehéâtre in Montréal.
[14] Unless otherwise indicated, all other quoted discussion between the Bozzini quartet and Radigue are taken from the recordings of the sessions that took place at Radigue's appartment on July 11th, 12th and 13th 2017.

recorded ARP synthesizer.[15] During the day, she would enjoy visiting art or science museums. In one of the rooms of the California Museum of Science and Industry (now called the California Science Center) she was stunned. A strip of material was pasted along a wall, and on it one could trace all the wavelengths known to humans: from the largest known one—from earth to the sun—down until the "micro-mini-mini" ones. Radigue had written all of this down on the program notes of her *Psi 847* concert to try to make sense of the vertigo entailed by the feeling that "our universe lives like this, floating in diverse wavelengths, many of which are not even known, many more, we can imagine…" The closest thing that gave Radigue a more immediate feeling of this myriad of swaying wavelengths was the ocean, with its great tides and its little "clapotis [lapping]" by the beach. Some thirty-five years after this epiphany, Radigue told QB that this was the fundamental spirit of the piece they were about to discover, and that it was common to all that they would undertake.

Indeed, water is literally a *fundamental* element of Radigue's *Occam Océan* project, meaning that it is part of the foundation of a given piece. Since each of the instrumental pieces are made "sur mesure"—tailored by and for each musician during their encounter with Radigue—a different and personal water image is chosen for each piece. Radigue and the instrumentalists choose the image together and use it somewhat like a scaffolding to create and remember the structure of a given piece. It is highly important that the instrumentalists have a special connection to the chosen body of water: it is usually something they have seen, it flows near where they live, where they come from, etc. Once the piece is well known by the instrumentalists, this mental water image

[15] *Psi 847* for ARP synthesizer, premiered in February 1973 at Iowa University.

can be "left behind in the drawer, like a score when one knows a piece by heart."[16] If ever there is a problem with the piece, musicians are invited to come back to this image and take it out of the "drawer" and have a quick "look" at it.

It is also important to know both the relevance of the mental water image, and its limits in the sound material of the piece. Of course, if an instrumentalist and Radigue decide together that a piece starts with the image of a great waterfall, it will sound different from one that starts with a small creek up high in the mountain. But then again, Radigue's music is no sound illustration: "It's more about all the feelings that come with it."

> Éliane Radigue: Now the sound material—and you must already know it if you know my work—is essentially a work on partials, on overtones, on micro beatings, on pulses, on harmonics, on subharmonics. To obtain these, there is no need to [use fermatas] or to suspend the beat, because there is no beat! Of course, everything is in *piano* dynamics, from *ppp* to—sometimes a *mezzo forte* (more *mezzo* than *forte*!) because when it's too loud, that's when the fundamentals resurface. That's that for the technical work. For the tuning, we couldn't care less about the tuning fork. 440 or 435 *on s'en fiche* ! Very, very slight variations [in tuning], that's actually what creates—between the instruments—all these little intangible, elusive marvels. Sub-harmonics are rare, *rarissimes!* They are low pulses, completely immaterial …! This is the material with which we are working. There are never brutal attacks […] there must be a continuity.

In terms of instrumental technique, this is practically all that the string quartet members got from Éliane Radigue.[17] Throughout the hours of recorded sessions, Radigue rarely went beyond the technical specificity stated in the previous quote. For example, she never indicated really specific bowing techniques, proposed to use double or single strings, or even say when or at what frequency each musician should play. The string quartet had to

[16] Éliane Radigue, conversation with author, August 2016.
[17] Radigue does at one point in the session comment about bowing technique: "From what I have seen, between the bridge and the tailpiece, it is often very interesting. This is just from what I have seen, because I am no violinist!"

figure out how to produce such sounds. They are the experts of their instruments, said Radigue, and she undergoes what she calls her sound shopping: “yes, this I like. No, this I don’t buy”.[18]

Thus, all the while arguably unspecific compared to traditionally notated scores, Radigue’s indications are highly supplemented by her presence during these first rehearsals. Through face-to-face collaboration, Radigue acts as a guide for instrumentalists, gearing them towards the sounds she wants to hear [Figure 1].[19]

[18] Éliane Radigue, conversation with author, August 2016.
[19] Comparing Radigue’s approach to certain approximate or image-based modes of music transmission such as the graphic score, other musicians have underlined the composer’s active participation in the collaborative process, and consider this as a marked difference. For example, French ensemble ONCEIM [Orchestre de Nouvelles Créations, Expérimentations et Improvisations Musicales] percussionist Antonin Gerbal considers Radigue’s interventions as a guide, a form of validation: “The difference [with certain non-traditional imaged-based scores] is that you’re at her house. And then, at one moment, she’ll say “I don’t like this.” Sébastien Beliah, double bassist for the same ensemble, adds: “She told me things before I played, she explained things about her music. And with the strings I think she's a little more precise than with other instruments, and she made it clear to me that she basically wanted to have a steady sound, that I should bring out harmonics, all things that are actually very concrete for the instrument. So we're not really in a completely abstract thing where she just showed me a picture of the Bahamas and told me to go for it! Concretely, she still told me things she wanted. And then when I played she said ‘I like that, I don't like that, if you do that it's good.’ There's still a process of elimination.” Interview with Clément Canonne and Nicolas Donin, IRCAM.

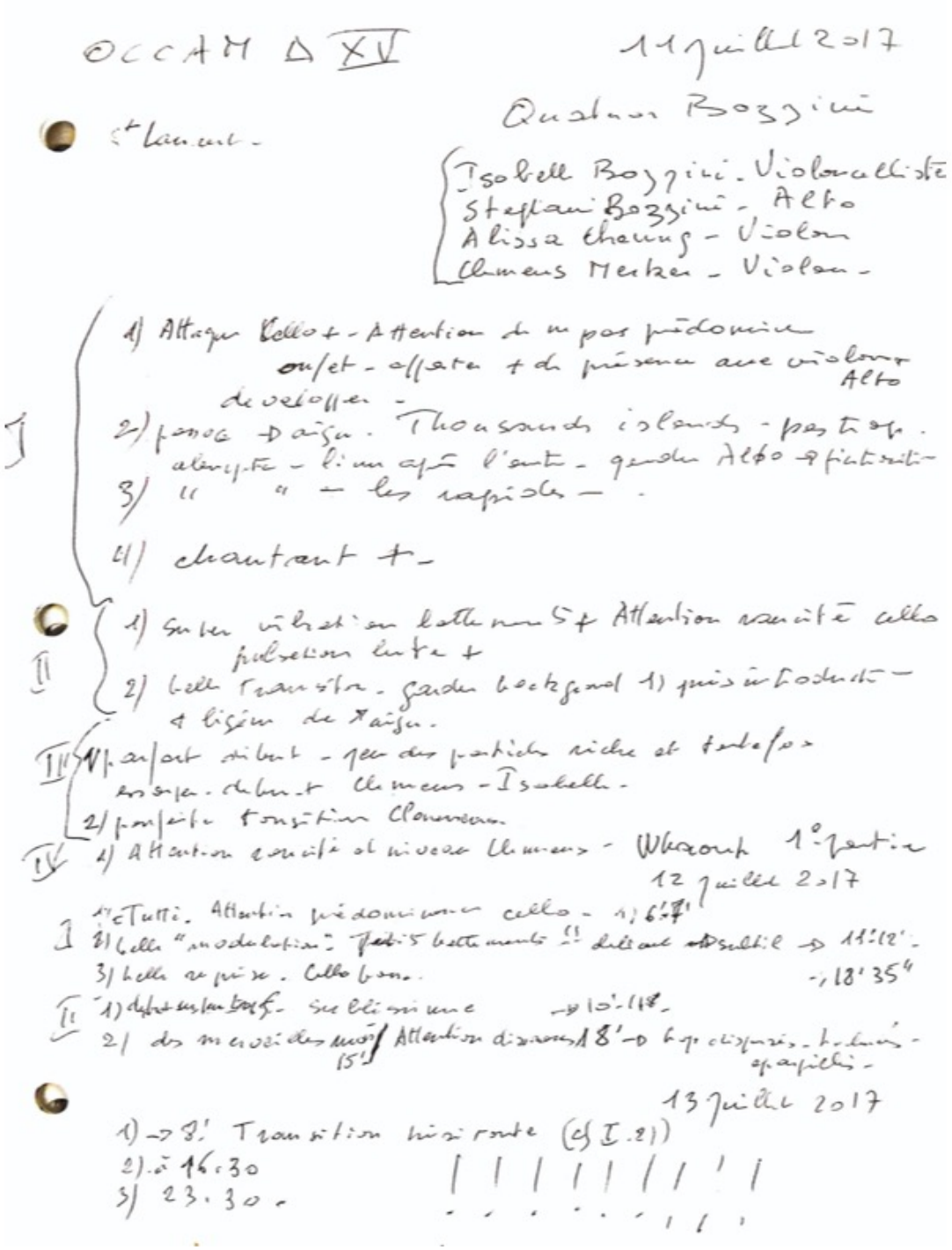

Figure 1. Photo taken by Clemens Merkel of Radigue's detailed notes taken during the rehearsals with Quatuor Bozzini on July 11th to 13th, 2017. In addition to oral comments, these types of notes testify of Radigue's active role and engaged attitude during her collaboration with instrumentalists. Photo transmitted to the author by email in July 2017.[20]

[20] Partial transcription and translation of the rehearsal notes:

1.2. QB's Social and Aesthetic Position

As I will explain in greater detail in subsequent sections of this chapter, in addition to this "sound shopping," or preliminary phases of the rehearsals, Radigue's advice focussed on reminding the quartet to choose the simplest path during performance, all the while letting them figure out what that path is. The quartet's ability to produce a piece according to the standards proposed by Radigue's music thus relied heavily on their ability to draw from their earlier experiences, to adapt their trained technical abilities, and to apply their previously collected knowledge of Radigue's music.[21]

What is important to remember here is that QB's chances for "success" during their encounter with Radigue depended, namely, on their position within a certain type of society. Knowledge of Radigue's music through mutual friends and experience of the

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I. 1) Cello entrance + - Be careful not to dominate. Develop + presence with violin + viola
2. [?] High register. Thousand Islands - not too much
3. [?]
4. Sing +-

II. 1) Observe slow vibrations + Be careful sound [?] cello. Slow pulses +.
2. Nice transition—keep background 1 then introduce + lightly towards high register

III. 1) Perfect beginning—play of partials rich and yet [?] beginning Clemens-Isabelle
2. Perfect transition Clemens

IV) Watch out for sound level Clemens [?] 1st part

July 12, 2017

I 1) Tutti. Watch out cello dominant 6'-7'
2. Cello "modulations" Soft beats!! Distant and subtle 11'-12'
3. Beautiful Cello reprise [?]

II 1) Sublime [...] beginning 10'-11
2. Wonders 15' but 18' watch out for dissonances

July 13, 2017

1. 8' Transition (see I-2)
2. at 16.30
3. at 23.30 !!!!!!!!!

[21] Beliah from the OCEIM ensemble compares this to a form of ritualistic initiation "but through music": "You arrive with your tools, you make sounds, and she says 'That's not for me, that's okay.' And at one point she says 'I feel you've understood.'" ONCEIM saxophonist Pierre-Antoine Badaroux added: "To me, she said, 'we'll have to come back for another rehearsal' [laughter]." Interview with Clément Canonne and Nicolas Donin, IRCAM.

quartet with musical works that are somewhat similar to Radigue's is paramount to the relevance of the encounter. In other words, even before the rehearsals had even really started, the quartet's social position and its artistic expertise formed some of the essential elements of the Bozzini-Radigue encounter.[22]

As concerns Quatuor Bozzini specifically, the string quartet has, over the last two decades, introduced itself to the experimental music scene. For example, from its first seasons, the ensemble became a great promoter of the Wandelweiser collective composers, and was amongst the first ensembles to play Jürg Frey, Antoine Beuger, Burkhard Schlothauer and Michael Pisaro.[23] The ensemble has become a specialist in this slow, very soft music, where "silence occupies a large share of its often extended performance duration" in which "harmony, rhythm and melody play either a subordinate role or none at all."[24] QB's most recent work with contemporaries of Éliane Radigue (Alvin Lucier, Phill Niblock and Pauline Oliveros, all considered pioneers in the genre) testifies to the durability and importance of this type of experimental music in the artistic approach of the quartet.

In addition to their choice of repertoire—one that shares many aspects with that of Éliane Radigue's—QB has been recognized as a leading advocate for a more

[22] It would perhaps be important to remind the reader that the ensemble pieces of Occam are made up of previously composed solo pieces, meaning that Radigue has collaborated in private with each member of the given ensemble before the ensemble is formed. This was not the case with QB: being a Montreal-based string quartet, their meetings with Radigue were part of a tour, meaning that would not have had enough time to meet with Radigue individually. According to Clemens Merkel, Radigue was at first skeptical about the success of the rehearsals with QB: "But since you already know my music… And what's more, it's the first time that there is a string quartet… *Eh oui*, you are the first ones on many levels!" In this way, not only did their knowledge of Radigue's music give them an advantage—it enabled them to meet with Radigue, period.

[23] Quatuor Bozzini is the first non-collective ensemble to play Jürg Frey. See "list of works" on Jürg Frey's website, accessed November 6, 2020, https://www.juergfrey. com/composition/list-of-works/.

[24] Nicholas Melia and James Saunders, "Introduction: What is Wandelweiser?," *Contemporary Music Review* 30, no. 6 (2011): 445–448.

collaborative relationship between composers and performers. Their Composer's Kitchen project, for example, is often cited as having actively participated in the redefinition of the links that exist between composers and performers.[25] In the form of a professional residency Composer's Kitchen creates a space where, in direct and regular dialogue with the ensemble as well as with mentor composers, young composers develop their writing for string quartet. In general, it is a collaboration where the composer is encouraged to focus the writing on what is important and intelligible to the performer.

Composer's Kitchen's motto, "Dare to do what you never dared to do" points towards one of its main goals, that is, to break certain taboos related to error and fragility. It is a workshop where hyper-control (and hyper-notation) gives way to risks, considered by QB members as an integral part of creation. With such activities at the forefront of their seasons, the presumption that composers and performers inhabit hierarchically distinct spheres fades, giving way to a type of encounter that aims at greater proximity.[26]

As concerns the quartet's collaboration with Éliane Radigue, such decisions have greatly impacted the success of these encounters, let alone the possibility of them meeting—at all—with the composer. Both QB's aesthetic choices, which led to great expertise in repertoire that is akin to Radigue's music, and their position and attitude towards performer-composer collaborations, have prepared them for their encounter with Radigue's unusual musical material and compositional methods. Indeed, their close

[25] In interviews with the author, composer and founding member of the Wandelweiser collective Antoine Beuger has emphasized the important role of QB's pedagogical activities in redefining the composer and performer relationship based on sharing. Similarly, composer Nicole Lizée underlined how, with QB, "it's never a 'well, that's done—next' type of mentality. After a work has been rehearsed and performed, we begin to speak about the next project and about further expanding the creative partnership and the ideas initiated in the first piece." See Majeau-Bettez, "Quatuor Bozzini," 15; 25.

[26] Majeau-Bettez, "Quatuor Bozzini," 14.

knowledge of music by composers of the New York downtown new music scene, as well as from the more recent Wandelweiser collective, has somewhat "trained" QB members to perform Radigue's long-toned, introspective music.

Yet, it is perhaps their general attitude towards collaborative practices, as well as their inclination towards risk-taking creative environments, that initially equipped QB for, and attracted them to, Radigue's music. Not only was the composer's encounter "risky" for the quartet (after all, Radigue does not "sign" a piece if the instrumentalists do not perform her music to her standards). Similar to QB's pedagogical workshops, Radigue's musical material (and not only her oral mode of music transmission) creates a space where hypercontrol and traditional virtuosity need to give way to risk. Indeed, and as I will analyze in the upcoming section of this chapter, if overcontrolled or "forced," the fragile microbeats that form the composer's signature style will not emerge, and the music will not happen.

1.3. QB's First Rehearsal: The Quartet as a Single Instrument

As previously shown, during the first minutes of their encounter, Radigue explained to QB the physical dispositions and technical requirements of her music (no direct attacks, production of a continuous sound, and attention to partials). Moreover, she proposed, since her music is marked by a large number of micro-beatings, conventional tuning is often not the best way to obtain the texture she is looking for.[27] To help find this texture,

[27] Radigue also often exploits pre-inscribed particularities of an instrument, like a wolf tone in a cello (Conversation with author, August 2016).

when playing in solo, string instruments will often have two strings (or more) tuned to slightly different frequencies.[28]

When speaking to the string quartet, Radigue actually applied the same "detuning process" that is normally used with solo instruments, that being a slight disparity between two similar pitches. Each stringed instrument (as a whole) of the quartet thus functions like one section of a big four-part solo instrument; each of the instruments—like the strings of a solo instrument in a Radigue piece—is tuned to slightly different frequencies. One of the violins and the cello could, for instance, be tuned to A 440, while the two other instruments of the quartet would be tuned circa 10 cents higher.[29] "In this type of work," stressed Radigue, "instrument and instrumentalist are one. All four of you are the one instrumentalist! You are four in one, and one in four!"[30] Thus, Radigue treats the string quartet exactly like she would treat a solo instrument. The quartet functions like one big instrument.[31]

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[28] For example, during the premiere of *Occam River XVI*, harpist Rhodri Davis tuned some of his G flat strings down to E flat, and made a few of these E flat strings a fraction sharper than the others. This slight discrepancy (between each of the E flat strings) created a perceived periodic variation, or beating. Rhodri Davis in an email to the author, June 2018.

[29] As underlined by Clemens Merkel, it is important to note that this "detuning" process is no strict rule per se. Radigue gives it more as a proposition, and the instrumentalists should then adapt their technique in accordance with the acoustics of the surrounding space. Conversation with author, July 2018. See also Luke Nickel, "Occam Notions," 22–35.

[30] This quote is both similar and different from what Radigue's contemporary, Giacinto Scelsi, did in his later violin pieces. In l'âme ailée/ L'âme ouverte (1973), for example, Scelsi notates each string of the instrument as a separate part, thereby making one violin a quartet in itself. Each 'part', i.e., string, plays the same note but at a slightly different frequency (a few cents apart from one another). When tuning (or purposefully playing) each string of the violin to the same frequency but only a couple cents apart, an interference pattern (beating) arises during performance of the piece. As I will show in the next section of the chapter, Radigue's instrumental music could be described in similar terms.

[31] Of course, one could say this about string quartets in general. Nevertheless, I would argue that there is something novel in the way that Radigue wants the string quartet to sound like one instrument, and not only like a choir of the same family of instrument. Her usage of the string quartet as one instrument goes far beyond orchestral color. I will analyse this in further detail in subsequent sections of the chapter.

Directly after Radigue's introduction to her work, QB members picked up their instruments, and dove for the first time in the composer's music. This first trial lasted a little over eight minutes, after which Radigue gave QB her impressions:[32]

> Radigue: The four parts are there, but they are too quick. You have to take your time. Did you feel the four parts?[33]
>
> Isabelle Bozzini: To be honest, I only heard three…
>
> Cheung: I was still stuck in the first part [laughs]!
>
> Merkel: I believe something that we have to figure out is how to know when we are all ready to transition to the next section, from one phase to the other… It's not a cut; it can take several minutes […] How can everyone be conscious of the same thing at the same time? I would like to propose something: how about if we start by playing only one section, just to figure out how to make that transition?
>
> Radigue: Yes, absolutely. As a matter of fact, when I say something, then I let you guys figure it out amongst yourselves. I made my comment, and now you have to figure out how to do it…You know, at the end there were really extraordinary things, micro-beatings, immaterial songs! Sometimes instrumentalists try to cheat, and give me halfway through the first, second or third harmonic, and I say: "This is not [a good] harmonic, this is [just like] a new fundamental!" [Laughter] Sometimes people make a mistake about the material! […] Yes, at the end there, it was very beautiful, very lyrical.

As Radigue mentioned, QB members are not like some instrumentalists "that cheat" and merely go for the first, second or third harmonic. Rather, they are able to improvise with only the most "interesting" harmonics. Moreover, it proves that the quartet is well aware of Radigue's aesthetic and had previous experience with such musical material. In a word, on their first trial, QB really understood and mastered the type of material that forms a Radigue piece.

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[32] Their fourth and last trial that day lasted around 15 minutes. Since the premiere of Occam Delta XV in 2018, the piece has stabilized itself somewhere between 30 and 40 minutes.

[33] The image on which the QB and Éliane Radigue agreed upon initially had 4 different sections/ areas. This structure was based on a water image that Radigue proposed to QB. Since this image should not be transmitted to the public due to the fear that they will try to "follow" where the instrumentalists are in the "score," I will refrain from sharing the exact image in this dissertation.

But then, the problem lies in the structure of the work. Even if all the instrumentalists have the same four-part image in mind, how to know when to transition to the next section?[34] How to decide who will give the transition cue, and how? Even if one member decides to take the lead—say Stéphanie Bozzini—how can she make sure that the other members are ready to transition to the next section? What if she is ready to transition to the third section, and one member is still "stuck in the first one?"

These may seem basic questions, and it is therefore important to remind the reader of the material that is being produced within a Radigue piece. While playing, the instrumentalists avoid producing a "flat" sound where the fundamental is heard too prominently, and rather focus on exploiting what could be called a tone's inner activity: its partials, overtones, micro beatings, pulses, and harmonics. In order for these "little intangible marvels" to emerge, one has to resist changing to another note too quickly. For example, while the slight detuning of the instruments gives rise to beatings, QB is not supposed to purposely control them. Although instrumentalists will sometimes bend their harmonics just a fraction sharper than other audible ones (to create a beating), such a technique should not be used to emphasize the beatings as the main colour of the piece.[35] Normally when beatings do occur they should not be disturbed, and the instrumentalists should just "appreciate the 'glistening' music."[36] "Waiting" and listening both to a tone's inner activity, and to the ways in which it contributes to the overall group sound, QB members have to find the patience to "just stay on one note" for a long time.[37]

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[34] Now the piece has 3 parts. Transitions will be addressed in the second section of this chapter.
[35] Radigue commented on the matter during the spring 2018 sessions with the Quatuor Bozzini: "Little artifices should always be used to serve the whole!"
[36] Alissa Cheung in an email to the author, June 2018.
[37] The physical effort to stay on the same note for such a long period of time should also not be understated. Isabelle Bozzini in conversation with author, April 2018.

This type of improvisation is by no doubt highly virtuosic, but it is a virtuosity that translates itself in extremely minute gestures, well developed by Radigue throughout her years with electronic instruments. Since Radigue's music requires a rich number of these beatings, all four members of the quartet bow their instruments at the same time. Moreover, in order to produce such sounds, the quartet bows in an extremely constant and slow fashion, thus giving the ensemble the appearance of quasi-immobility.

While they are seemingly not budging, all four instrumentalists are actively and equally participating in the formation of a seemingly unchanging block of sound, one that "may appear stagnant on the surface, but full of activity of you listen closely."[38] In this way, visual cues are not necessarily the best transition option.[39] How to get an audible or visual cue when there are no cuts, no drastic changes, no audible attacks? How to get an audible or visual cue when all four instrumentalists are practically immobile, and are meant to sound like one big instrument producing an ostensibly unchanging block of sound? How does string quartet decision-making arise when the quartet is treated like a single instrument?

At the time of their first rehearsal with Radigue, QB did not have an answer to these questions. The temporary solution was to try to stop the process right at the transition, and to concentrate on making the first part a bit louder, and a bit longer. Before letting the quartet leave her apartment to go rest and practise on their own, Radigue advised:

> "And just keep going until there is a problem … you have the 'score!'[40]

[38] Alissa Cheung in an email to the author, June 2018.
[39] Quatuor Bozzini always plays Radigue with their eyes closed.
[40] This comment by Radigue is in line with the Ockham Razor notion: If things are going fine, the simplest solution is to keep it going. Throughout the sessions, Radigue kept one way or another hinting at the Razor.

1.4. QB's Second Rehearsal: The String Quartet as More Than Four Instruments

Coming back to Radigue's apartment the next day, Isabelle Bozzini, speaking for the quartet, shared how happy they were with the whole process. Nevertheless, they were still 'stuck' in the first and second half of the piece—they still could not figure out how to transition to the third and fourth sections. Clemens added that after a few minutes in the piece, he could not hear who was playing what.

> Merkel: With the mix [of sounds] I can't know anymore. At one point there was a beating between Isabelle and I, so I tried to play with my pitch a little. But then it wasn't me at all! That's what's most difficult—knowing which note to play! I don't know who is playing what, so then I don't know how to react…
>
> Éliane Radigue: You will have to let go, stop worrying about this, because this is mostly how it goes [with this music]. You have to do with it! It's normal to think of these questions now—it's the preparatory phase […] With some musicians, it's sometimes difficult… But with you, I'm not worried!
>
> Isabelle Bozzini—I think we just have to let go. We have to be patient.
>
> Radigue—Yes, one thing that is important: never force anything. You have to work, but you have to work 'cool.'

In order to really understand what is at stake here, I will go back briefly to the description of how sound is produced by the quartet in the Radigue piece. As previously explained in different sections of this dissertation, while playing Radigue each musician of the ensemble will sometimes slightly bend their fundamental or their harmonics in order to match (almost, but not quite) another pitch that they are hearing. In other cases, the instrumentalists will have simply tuned their instruments to slightly different temperaments. When playing two sustained notes that have microtonal differences, an

interference pattern emerges, and is perceived as beating.[41] When sound signals interfere in this way, the beat signal can sometimes be heard as a separate note.[42] These third-party interferences accumulate in Radigue's music into what clarinetist Carol Robinson evocatively called "a big balloon of sound, floating above your head when you're playing."[43]

This means that while QB instrumentalists have to demonstrate an extremely high level of control in order to sustain sounds or bend harmonics, the result of this high control is the production of almost uncontrollable sounds. As the piece evolves, these freelanced frequencies inevitably accumulate, and it becomes extremely hard to differentiate between which notes are *played* on an instrument—let alone who is playing them—and which notes are the result of the sum of two similar *played* notes. In a way, Radigue's music, while demanding high control over the instruments, comes back on itself to deny that very control to the instrumentalist, to challenge it. Or to be more accurate, one should say that Radigue's music does not deny all types of control, but rather requires the instrumentalists to embrace a different type of sound mastery.

As I have shown earlier, from one perspective the string quartet is used within Radigue's music as one solo instrument to create a seemingly unchanging block of sound. And yet when listening differently, each instrument of the string quartet sounds as if

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[41] Max F. Meyer, "Subjective Tones: Tartini and Beat- Tone Pitches," *The American Journal of Psychology* 70, no. 4 (1957): 646–50.
[42] As a reminder, these 'extra' notes are called Tartini tones, or difference tones: "Tartini tones sound like a low pitched buzzing note with a frequency equal to the difference between the frequencies of the two interfering tones." "Interference Beats and Tartini Tones," University of New South Wales School of Physics, accessed December 10, 2018, http://www. animations.physics.unsw.edu.au/jw/beats.htm#sounds.
[43] Conversation with author, October 2017.

multiplied; as if each string instrument were four instruments on its own; it is simultaneously larger and smaller, controlled and uncontrolled.

In this context and as previously discussed, it becomes practically impossible for QB members to make any sort of precise plan before the performance, and agree in advance of the performance on specific details such as phrasing, tempo or dynamic changes.[44] Moreover, given that perception is somewhat distorted by the nature of Radigue's music, decision-making *during* performance—which relies mainly on auditory perception—is not clear-cut. For example, if Alissa Cheung feels and hears that it is time to transition to the next section of the piece, this decision is probably caused by either of the two following situations. 1) She feels she cannot keep the energy, the beating or the vibration going on in a certain way much longer, or 2) She hears that other players are transitioning to a new section. In both cases, it is hard to understand what the decision ratio is. If we take only the first example, since the block of sound produced by the fours instrumentalists sounds like one big instrument, Cheung may feel like she is transitioning away from one entity. On the other hand, Cheung is most probably making more sounds than that which is produced by the friction between her bow and the body of the instrument. When Cheung starts to transition to a next section, it may sound as if more than one player were changing gear; as if, for example, three players were detaching themselves from the unified block of sound.

This all comes down to one main aspect of Radigue's music; as per Merkel's comment, performance of such music is extremely confusing, even for an experienced

[44] This may also partly explain why, after a concert, Quatuor Bozzini rarely speak together about the performance of the piece. Comments about tempi, attacks, etc., demonstrate a will to better control certain aspects of the music in advance of the next performance. In Radigue's music, this is not possible. QB in conversation with author, June 2018.

experimental music quartet. In order to keep producing the sounds demanded by Radigue's music, each instrumentalist has to operate, make decisions, and listen as if simultaneously part of one big instrument and more than four instruments at the same time. To paraphrase Radigue, instrumentalists are confounded with instruments in her music. During performance, they play a paradoxical game in which, on the one hand, they must deploy high musical precision, while, on the other hand, the music itself "self-generates" beyond their control. Instrumentalists control instruments, and instruments control instrumentalists. The way to navigate this game of strange control is, perhaps surprisingly, to "let go […] to work, but cool."[45]

2. POST-PERFORMANCE STUDY

2.1. A Space for Discussion

Up to now, I have sketched out some of the similarities between Radigue's electronic and acoustic music. Or, rather, by showing "what it looks like" when an instrumental ensemble such as QB meets Éliane Radigue, I have outlined some of the ways in which her lifelong research for a particular type of sound influences and challenges today's experimental practices. In reverse fashion, through the Bozzini-Radigue case study, I have pinpointed particular social and aesthetic dispositions of the quartet, ones that have somewhat already prepared the ensemble for Radigue's sound, as well as her collaboration-based music transmission.

[45]Clarinetist Carol Robinson also mentions an interesting particularity of Radigue's music in regard to control. As we are starting to see with the Bozzinis, while learning and creating a Radigue piece the instrumentalists have a lot on their shoulders; they make technical decisions, they have to figure out many things by themselves. Moreover, and as Robinson underlines, the 'real' work starts after the meetings with Radigue. When the instrumentalists have gone back home, they have to incorporate all that they have learned. Mastering the piece enough for it to be performed can take many months, even years. Conversation with author, October 2017.

In sum, in addition to the arguably non-traditional sound organization of Radigue's music (built around resulting tones and micro-vibrations), *Occam Delta XV* is open-ended regarding its overall structure. Radigue's indications to performers during rehearsals are indeed unspecific regarding instrumental technique and other forms of more traditional sound organization such as chords, pitches, rhythm, and the actual duration of the piece. Rather, during the transmission of *Occam Delta XV*, Radigue gave the string quartet several performance "rules," structural goals, as well as specificities regarding sound material.

Radigue adopted a similar approach regarding the different sections of *Occam Delta XV*. How to transition or when to transition from section to section is completely up to QB. The duration of each section of the work is thus determined by what seems to be the simplest solution for QB, and depends on how "good" the musicians feel: the resonance of the hall, the concentration of the musicians, are all factors that will influence how quickly or slowly they transition from one section to the next.

Moreover, the piece is indeterminate in terms of the instrumental functions it ascribes to its performers: no specific role (e.g., leader/follower, melody/accompaniment) is purposefully given to the quartet members, as they all contribute equally to the overall, always-evolving, sonic texture. During the transmission of the piece described in the previous section of this chapter—even more so than the piece itself—QB learned how to "play Radigue," in general. When musicians come and meet with her, Radigue takes for granted that they already know her work. How musicians produce such sound material is entirely up to them. To put it too simply, learning how to play a Radigue piece is more akin to learning how to ride a bicycle than anything close to learning a specific piece:

once you know how to ride, turning right or left, riding with or without hands, is totally up to you. In other words, for QB, learning the piece amounted to understanding how to collectively produce a "Radigue sound".

Finally, from a phenomenological perspective, the piece seems to involve a high degree of "loss of self". In addition to QB's comments quoted previously regarding the confusion, during performance, around who is actually producing the sounds that they hear, in later discussions QB members even speak of a trance-like experience, where the only moments of "lucidity" during performance are triggered by accidents, like when an audience member drops a water bottle.[46] What is more, compared to other ensembles that perform Radigue's music, QB is the only quartet made of the same family of instruments. When sound interferences and resulting tones accumulate during the performance between the cello and the viola, and even more so between the two violins, it becomes extremely hard for the performers to retain a strong sense of self—to hear who is playing what.

Given the highly open-ended structure of the composition, as well as Radigue's particular sound material, I was curious to understand how, during the performance of *Occam Delta XV*, musicians' listening might guide their collective navigation within the piece. In other words, how *does* QB end up transitioning from one section to the next? Does one musician in particular take the lead? What are QB members listening to during the performance of Radigue's piece, and does that have an impact on the overall structure of the work?

[46] Merkel, in discussion with author, September 2019.

To address these questions, I asked QB members to participate in a study where they could share their impressions on a specific performance of *Occam Delta* by means, amongst other forms of annotation, of a traditional questionnaire. As previously stated, amongst other benefits, I felt the medium of the post-hoc study would open yet another window, this time in my ethnographic research on QB's performance of Radigue's music. Indeed, when I asked QB questions about the piece concerning, for example, how they listened or how they ended up transitioning to the different parts, they would, as Clemens Merkel did once, chuckle, open up their arms, and say, "We don't know!"[47]

Would the answers be different, or more precise, if asked directly after a performance of the piece? Would the intimate nature of the study—with, in the hall or the recording studio, only QB and the research team—lead the quartet members to a more introspective analysis of their performance? Would the event open up spaces for reflection and trigger new discussions about Radigue's material that, in the comes and go of post-concert performances, seemed uneasy?

In sum, in addition to notions of control, leadership, and listening orientation during a performance of Radigue's piece, my goal with the study that is exposed in the following paragraphs of this chapter was to offer a different and more condensed space for discussion, where neither time nor friends from the public could alter our concentration.[48]

[47] Post-rehearsal conversation with author, January 2018.
[48] Moreover, as previously stated, it was important for QB members that the annotations and questionnaire answers be filled out directly after the performance, lest they have trouble remembering specificities of their performance. Stéphanie Bozzini, in conversation with author, September 2020.

2.2. Post-hoc Questionnaire Answers: Control and Performance in *Occam Delta XV*

On November 10, 2021, we invited QB to a recording studio at IRCAM (Paris) to participate in our exploratory study, and perform *Occam Delta XV*.[49] For the sake of clarity, a brief description of QB's performance of *Occam Delta XV* is in order:

- The performance started in a *mezzo piano*. The first minutes of the piece were moments where the string players' individual sounds were heard most discretely; when each instrument was most easily identifiable in the mix of sounds.
- Around 2 minutes in the performance, the resulting tones typical of Radigue's music started to build up, and the quartet sounded more like one breathing instrument.
- At circa 4 minutes, there was a dip in the sound: Merkel had already started transitioning to the second part of the piece. This transition to the middle section of *Occam Delta XV* is, according to Merkel, one of the hardest parts in the performance. It implies to break away from the "initial state" of the piece, and to move towards "other harmonies and registers."[50] Indeed, this second part presents the most fragile sound material. It is a work on harmonics, the quartet moves to a *piano* dynamic, the ambitus is thinner, and the resulting tones build up and make it extremely hard to decipher individual instruments. This new "fragile" state emerged around 7 minutes, with the most audible violin (Merkel) toning down as he switched to harmonics.[51]
- At circa 13 minutes, the sound texture started to become louder: the quartet was slowly transitioning to the last section of the piece. Around 18 minutes, most string players had reached the last section of the piece. Something opened-up dynamic wise, and the sound texture as well as the ambitus became even louder and broader; most instrumentalists had definitely moved away from the harmonics on which they were playing and were now playing fundamentals (first harmonics).
- Around 20 minutes QB members underwent the most coordinated transition of the performance, that being the one towards the end of the piece. There was a clear change in harmony, and the texture radically thinned out.

[49] The study was part of a larger project on joint action in free improvisatory, or more indeterminate and open-ended, music. Parts of this study that are relevant to my thesis are exposed in the following paragraphs of this chapter. See Majeau-Bettez, Emanuelle, Aliénor Golvet, and Clément Canonne. "Investigating musicians' listening strategies in the performance of Eliane Radigue's *Occam Delta XV*" (paper presented at the 22nd Musical Togetherness Symposium, Vienna, July 13, 2022).
[50] Written by Merkel on the segmentation instructions distributed to QB members during this study.
[51] As per QB's oral comments after the study, the violin sound was more audible in the recording than from their standpoint during performance.

A professional engineer recorded the performance and, while the programmers of the team were uploading the audio files to the software developed for this study, QB members sat down at a table to answer the questionnaire.

QB answered the following questions concerning their general appreciation of the performance, as well as their sense of who "led" the quartet into the piece's different sections. First, on a scale from 1 to 7, we asked them if they considered that this was a good performance of the piece, and why. Second, we asked them if they thought the transition points (to the second, third and to the end of the piece) happened at the right moment. If their answer was "no" we asked them to indicate if they thought it happened too early, or too late. Finally, for each transition, we asked them if they had the impression that they directed the transition, that another member directed the transition, or that no one in particular directed the transition.

After filling out this questionnaire, we invited QB members to listen back (individually, with headphones) to the recording of their performance. Amongst other annotations, we asked them to undergo a segmentation of the piece. Each musician was asked the following: "Please write down the timings corresponding to:

- The moment you started to go to the second part;
- The moment you had definitely reached the second part;
- The moment you started to go to the third part;
- The moment you had definitely reached the third part;
- The moment you started looking for an end to the performance".

Overall, each musician segmented the performance into 6 parts (i.e., Part 1, Transition 1, Part 2, Transition 2, Part 3, Transition 3), corresponding to her own navigation within the loose structure of the piece. This segmentation task was done using iTunes as a media player, as well as pen and paper. Musicians could pause the recording

or rewind it at any time. They were asked to write down the segmentation points only when they were reasonably confident in their answer.

In the questionnaire answers, Most QB members gave a high score concerning their appreciation of the performance. In general, they agreed that the performance "flowed nicely." They also agreed that it was perhaps too short, that the transitions were not quite together, and that many happened too early (hence their feeling that the performance was too short).[52] [Table 1]

	Isabelle Bozzini	Stéphanie Bozzini	Alissa Cheung	Clemens Merkel
Question 1. *On a scale from 1 to 7, do you consider that this was a good performance of the piece?*	6	5	5	5

[52] In a pilot version of this study in at the Espace Aline Letendre (Gesù Church) in Montreal, both Isabelle and Stéphanie Bozzini mentioned, in their answers, the great acoustics of the hall. Stéphanie Bozzini spoke of an "ideal acoustics" that allowed them to "deepen the sound at times, or to float above […] it gave it a 3-dimensional aspect." Moreover, Stéphanie Bozzini appreciated the "very long and slow transitions between the sections." Alissa Cheung, on the other hand, felt that the changes were too abrupt, and she felt she heard individual rather than overall sound, as it should ideally be the case. Similarly, Isabelle Bozzini, although she "felt nicely settled within the group," still heard more individual sounds than in previous performances of *Occam Delta XV*. Clemens Merkel, who gave the lowest score for this section, deplored that he did not hear the other quartet members as he would have wished. Additionally, he felt the performance was too short, and insecure about how—and if—their sound blended true to Radigue's aesthetic

Why?	The acoustics allowed for quick reactions; a particular intensity in the game	The beginning felt very good. It was poised and calm, well blended. Very consonant (a little too much). But overall too short, especially the last section that could have expanded time wise/harmony wise.	Short. Not sure if we all agreed on 2nd and 3rd parts (transition length). Nice smooth and rich sound.	Good harmonies, though a bit short, transitions not super clear (and together)

Table 1. Compilation of QB musician's general appreciation of their performance of *Occam Delta XV* on November 10, 2021.

Yet, while QB were mostly on the same page as regards to the quality of the performance and the timing of the transitions, their answers concerning leadership and transition points were, to some extent, less homogeneous. Indeed, to the question "who led transition X", QB members never took personal responsibility for a change in the piece's narrative [Table 2]. As shown in Table 2 the musicians would either state that another member had initiated a transition, or that no one in particular had taken the lead.

	Isabelle Bozzini	Stéphanie Bozzini	Alissa Cheung	Clemens Merkel
During transition 1, I had the impression that: I directed the transition ☐; Another member directed the transition ☐; No one in particular	No one in particular directed the transition	Isabelle Bozzini	Another member directed the transition; Clemens Merkel	Another member directed the transition; Isabelle Bozzini Transition 1 is always difficult for me to place /hear. It means leaving the initial "state"

directed the transition ☐.				and start moving (to other harmonies / registers)
During transition 2, I had the impression that: I directed the transition ☐; Another member directed the transition ☐; No one in particular directed the transition ☐.	Violins going down the register, but maybe with a different intention.	Another member directed the transition	Another member directed the transition; Isabelle Bozzini	No one in particular directed the transition. Transition 2 means reading the "peak"? It always depends on [mood / wave]* and how transition 1 happened.
During transition 3 (to the end to the piece), I had the impression that: I directed the transition ☐; Another member directed the transition ☐; No one in particular directed the transition ☐.	No one in particular directed the transition. The more we play the piece, the more natural the flow. This version was shorter, but it felt right to me.	Another member directed the transition	Another member directed the transition;	Another member directed the transition.

Table 2. Compilation of QB musicians' answers regarding leadership in transition points during their performance of *Occam Delta XV* on November 10, 2021. *Words that were difficult to read.

At first glance this reluctance to take charge of the structure of the work may seem odd, especially with regards to Merkel's own segmentation of the performance. Indeed, the moments when the violinist noted that he had started a transition or that he had reached a section of the piece mark him as a leader; Merkel was practically always the first player to initiate structural moves in the performance.[53] Why then did he not feel like he had led the performance? As a matter of fact, why did no one in the quartet point him as a leader? Why this tension between the timing of his transitions, and his (un)controlled feeling?

While this apparent contradiction between action and perception is perhaps surprising, it is indeed somewhat unavoidable in Radigue's music. Cheung, on the questionnaire, added a comment in the margins that clarifies QB's disposition towards leadership in *Occam Delta XV*:

> I heard way more difference tones in this performance, leading me to wonder if what I was listening to was actually the note someone else was playing or if I was hearing a difference tone […] There are so many possible ways to end the piece. There was a point where I was unsure if the piece was coming to an end—if we should keep the energy. Once someone else changes a note, then I know that the piece is still going. If there starts to be decrescendo, I know to no longer change notes.

As per Cheung's comment, if new notes are still emerging, or if there is a general dynamic change—regardless if a particular musician is creating these notes, or if they are resulting tones of the ongoing sound activity—this means that the section may go on.

[53] For example, he started transitioning to the second almost 6 minutes before Alissa Cheung, the last QB member to transition to the second section. He then felt he had reached that second part of the roughly 5 minutes before the last QB member, Stéphanie Bozzini, felt she had reached that second part. Merkel then started transitioning to the third section of the piece almost 5 minutes before the last QB member, Alissa Cheung, started transitioning. He reached that third section of the piece 4 minutes before the last QB member, again Alissa Cheung, reached that third part. In reverse fashion, except for the moment where musicians felt that they had reached the second part of *Occam Delta XV*, Alissa Cheung is always the last member of the quartet to either start a transition, or to settle in each section.

Thus, in the midst of the performance, QB members react more to the thickness of the sound texture, and the energy of the inner beating of the sound, than to any specific QB member. The full-on knowledge by QB members of who actually leads a transition is not, in regard to the overall success of the piece, a priority.

Consequently, when QB members declared, in their questionnaire answers, that no one in particular directed a given transition—which was often the case—they did not do so out of spite. In Merkel's case, although his early transitioning unavoidably had an impact on the performance of the piece and mark him as a leader in those ways, in QB members' own perception during performance —including Merkel's—such traditional roles do not hold. Rather, QB's reluctance to pinpoint a leader in the group reveal some of the particular performance practises that take place during *Occam Delta XV*. Everyone, yet no one that can be clearly identified, participates in the overall mass of sound. All musicians react to an ever-changing sound proposition, and learn the patience to, often, just listen.

In sum, during their performance of *Occam Delta XV* QB does not to try to consciously find out who is controlling the sound. Needless to say, QB members are not looking for a precise "cue" and are consequently not actively and deliberately trying to follow someone's lead as it would be the case in less open-ended, or score-based, repertoire. In other words, not only are the musicians' sound blended within *Occam Delta XV* to the point where they lose their sense of self; they react to a mass of sound that, as previously hinted, takes form beyond their immediate control. In lieu of a musician, the thickness of the sound texture, and the energy of the inner beating of the sound—all elements that are tied to, namely, the acoustic of the room—take the lead.

3. MATURITY OF *OCCAM DELTA* XV

3.1. The Performance as a Mindset

"I remember when we came out of the first rehearsal with Radigue we all had a different idea of where the different parts were, and what we should do or not do… and at the end it was a very natural process. The rehearsal process is more a mindset—you don't practise her music for hours and hours…"

This quote is taken from a recording of Isabelle Bozzini speaking to university students after the conference at Concordia University on Radigue's music.[54] QB performed *Occam Delta XV*, after which students were invited to ask questions to the quartet. At that point, QB had performed *Occam Delta XV* many times in public, and even more in private.

Perhaps since it was clear to both QB and the audience that after the performance questions were welcomed, this conference proved extremely rich in regard to QB's reflections on Radigue's music. Somewhat contrary to my experience interviewing QB on *Occam Delta XV*, the students did not shy away from asking question after question to the quartet, despite the meditative state often imposed by the performance of the piece.

The student to whom Isabelle Bozzini was answering had interrogations concerning how QB rehearsed the piece outside of Radigue's apartment, meaning those rehearsals that occurred after the first rehearsals described at the beginning of this chapter. Indeed, at the very beginning of the transmission process, QB members were concerned and somewhat destabilized by Radigue's approach, and they asked themselves questions regarding which notes they should play, and how or who should lead the

[54] Majeau-Bettez and Quatuor Bozzini, "Occam Delta XV."

quartet through the different sections of Radigue's piece. Consequently, they initially proposed solutions that, in a different context, would have made the rehearsal more efficient. For example, during the first sessions with Radigue, Merkel suggested working only on the first section—to play from point A to point B—of the piece, so that they could, as an ensemble, all hear where the transition "point" took place.

Yet, QB members quickly realized that, as Isabelle Bozzini put it in her answer to the student, preparing for a performance of *Occam Delta XV* is more of a general mindset than anything close to traditional rehearsal tools like repetition or segmentation of a piece. If they "rehearse" their Radigue piece on the instrument, they are in effect performing it. In other words, Radigue's sound material does not offer the leisure to "practice" the way the ensemble could, for example, rehearse a specific section of a traditional string quartet piece. The length and extremely slow pace needed to produce Radigue's signature sounds, as well as the very particular type of control and virtuosity triggered by the composer's music, demand of QB an all-or-nothing commitment. Having played the piece a number of times in public, QB had moved to a performance zone where, as per Radigue's advice, concerns regarding pitches, precise transition points, and repetition become secondary matters:

> Stéphanie Bozzini: I was just telling Emanuelle, we had two sessions with Éliane, and there was one time when we played for her and it felt like the right thing. I always go back to that.
>
> Cheung: You can't re-create the *performance*—it's so much about the time and the place. But now that we've played it many times in public and even more in private, we know that state of mind very intimately and we can come back to it.

It is this "zone" that QB members refine over performances of Radigue's work. More so than specific musical elements, during a performance of *Occam Delta XV* QB members

share this mental state. Over time, QB explained to the students, they have come to terms with this particular performance practice, and they now focus their energies on refining that special "deep down" mental space, to use Merkel's words.

3.2. Listening and Gesture

Despite QB's explanations regarding the primacy of the mindset over specific structural points in the piece, students—very much like I was for the longest time—were fascinated by the fact that Radigue did not give QB members a pitch to start with, and that the general coordination of the three-part structure of the work was not amongst the most important elements of the performance. This led QB to explain the process leading to the meditative state induced by Radigue's music.

For example, Merkel shared with the students how he usually reached that state of mind only after a few minutes in the performance:

> It's also an extremely physical process. You have to find the speed here [in your bowing]. We always play with eyes closed, so you feel that space between your instrument and your arm bowing, the quartet space, and then the room space, and you incorporate that into your being at that moment. It's such a tight net: what I do totally depends on what someone else does. If there is the slightest change, I hold back anything I wanted to change in the next minute or so. And I wait, see what's happening. You always have to contribute something, and resist.

The way QB listens is thus intimately intertwined with the way they take awareness of their physical presence, as well as that of other quartet members, and of the hall in general. Of course, how the musicians bow their instruments and the resonance of the hall both have a direct impact on the piece. Yet, as per Merkel's explanation, sound and gesture connect at another level; one very close to what Radigue developed first with her tape recorders, for example. With her compositions with feedback techniques, Radigue

also found herself in “a tight net,” controlling, through precise and patient gesture, the distance between the microphone and the speaker of the tape player to produce the soft sounds she wanted to create, without the usual screeching effect that the Larsen is renowned for. As previously explained, she would wait, listen, and learn the patience to move the taper recorders “just at the right time” lest the soft sounds she wanted to make would be completely submerged by wild, loud, feedback.

Thus, through performances of her work, QB became familiar with Radigue’s very particular gestural virtuosity. In a way, they learned to listen—and move—like Radigue. “It’s a very elevated level of listening…” Merkel added, “it’s somewhere between meditation and hyper consciousness. We’re so conscious of everything that happens. It has certainly elevated our listening together.”

As per Merkel’s comment, QB’s listening plays a strategic role during the performance of *Occam Delta XV,* and allows them to gain the patience to navigate within Radigue’s indeterminate framework. While in the previous section of this chapter I suggested that, according to QB’s members’ impressions during performance there was no “leader” in the traditional sense of the term, it is important to stress that there is nothing passive about how (and to what) they listen while playing Radigue. Indeed, the role of listening in QB’s performance of *Occam Delta XV* goes beyond passively picking up affordances from the sonic environment collectively produced by the musicians.

On one level, Radigue’s sound material triggers, in QB’s case, a feeling of loss of self, given how the contributions of each player are harder to discriminate perceptually in such a setting. And yet this does not equate with passive listening from QB’s part during performance. On the contrary, QB members use their auditory attention selectively,

waiting for the right moment to participate in the sound texture, zooming in or zooming out in a dynamic way, thus amounting to full-fledged listening strategies. In essence, Radigue's music presents QB musicians with sound material that, despite its meditative inducing qualities, requires almost hyper-conscious listening strategies.

4. CONCLUSION

In this chapter, I have presented sketches—or snapshots—of QB's ongoing relationship with Radigue' music since 2017.

The first one of these snapshots showed QB at Radigue's apartment, learning about the genesis of the composer's instrumental project. Through it, I showed how, despite their predisposition for Radigue's music and collaborative methods, QB members were still challenged by the composer's material. Indeed, as per the transcribed discussions, Radigue's sound can become, even for highly trained performers, extremely confusing. Many reasons, both sound and social-based, explain why Radigue's music deemed somewhat confusing for the Bozzinis during these early-stage rehearsals.

First, as already discussed through the Bozzini case study, in Radigue's music the oscillations between the partials replace external forms of organization. Second, as concerns performance practice, Radigue's sound material (partials, overtones, microbeats and pulsations) requires great patience, in both listening and gesture. Thus, the composer's music (be it electronic or acoustic) pushes the performers to adopt a particular mastery of sound. In sum, while performing Radigue's work QB—as the composer herself has done throughout her entire career—devote their energies to creating a space in which the interiority of sound can emerge, and somehow live on its own. During the transmission process and throughout their performances of Radigue's music,

QB learned more how to "play Radigue" in general than they learn how to reproduce a precise work.

Later snapshots of QB playing Radigue show how such notions have, throughout the performances of *Occam Delta XV*, slowly yet naturally steeped in the ensemble's performance practices. As Isabelle Bozzini has shared, performances are the rehearsals, and rehearsing Radigue amounts to learning this particular mindset conductive of Radigue music. Precise structural elements such as the length of each section of the piece, or even notions of leadership within the ensemble are preliminary elements that, as the ensemble becomes more experienced with the composer's aesthetic, can be left "in the drawer," as the Radigue puts it. *Occam Delta XV* itself is more a "parcours" proposition.[55] In essence, transmission of a Radigue work and further performances are a continuing process through which performers learn the composer's sensitivity.

Yet, as seen, this patience in performance practice does not equate with passive listening. Indeed, as Alissa Cheung has shared with me in the margins of her questionnaire how "the acute listening required for this piece is very demanding as is the technical bravura to maintain steady equal long notes and imperceptible changes in between changes in harmony." Radigue's intricate and fragile sound material requires a hyper present, and enduring, physical and mental states.

In sum, Radigue's entire corpus presents important similarities in texture, material, sound organization and performance practice. This even leads people to say that Radigue composes for instrumentalists as if they were a synthesizer.[56] Radigue voluntarily

[55] As a reminder, at the beginning of the transmission process with the Quatuor Bozzini in 2017, Radigue proposed a four-part piece. Today, the piece has more of a three-part structure.
[56] Radigue in conversation with author, August 2016.

acknowledges this, exclaiming that if one were to put all her pieces next to one another, it would build one immense piece. Merkel commented on the matter:

> I don't think it's a different approach [her electronic and her instrumental music]. She always wanted to write acoustic music, but she had to write for electronic instruments because no one wanted to play her music. I think it was always in her mind. The difference with her synthesizers is that she had to fix it. She did not work with live media. The listening part, it's the same.[57]

The intricate strategies that emerged and evolved through the encounter between Quatuor Bozzini and Éliane Radigue's music point to the acute, active, and challenging nature of auditory attention and physical availability in Radigue's music. Her sound, which she has developed hand in hand with a modular synthesizer—somewhat by necessity—for almost half of her life, holds the potential to shake expectations regarding the links between virtuosity and listening in particular, and music making in general.

[57] Majeau-Bettez and Quatuor Bozzini, "Occam Delta XV."

CHAPTER 5. Who is the Performer? A Case Study on Listening, Transmission, and Gesture During Performances of Radigue's *Occam Océan* and *Occam XXV*

In this chapter, I follow members of the Parisian music scene that have collaborated with Éliane Radigue on her latest instrumental project, *Occam Océan*. I use this section of the dissertation to show the differences and similarities with Quatuor Bozzini's experience, presented in chapter four. The two case studies around which I build this chapter testify of Radigue's influence and effect on the ONCEIM ensemble [Orchestra of New Creations, Experimentations, and Improvisations] as well as on the group's artistic director, pianist Frédéric Blondy.

On September 23 and 25, 2019, I documented Frédéric Blondy's rehearsals at the Grande Salle Pierre Boulez of the Philarmonie de Paris. The piece rehearsed was Radigue's *Occam XXV*, for the organ, and the context in which it was to be performed was Paris's *Nuit Blanche* Festival.[1]

Occam XXV does not mark Blondy's first collaboration with Éliane Radigue. He met the composer during the 2010 edition of the *Rendez-vous contemporains* experimental concert series, where he had invited her to perform one of her electronic pieces at Église Saint-Merry.[2] The pianist subsequently commissioned Radigue to compose a piece for ONCEIM, a then newly founded 34-member free improvisation music ensemble for which he serves as the artistic director. The piece composed, *Occam*

[1]Launched in 2002 by the city of Paris, *Nuit Blanche* opens the doors of diverse venues, museums, and monuments to offer free "contemporary artistic" events for one night, from dusk to dawn. "Nuit Blanche 15 ans," accessed April 13, 2022, https://www.paris.fr/webdocs/nuit-blanche-15-ans.

[2] The public was invited to listen to Radigue's 1973 electronic piece, *PSI 847* on the 21st of May, 2010. The concert series was dedicated to "take certain sound practices out of the underground network to which they are restricted and to offer them a space that is commensurate with their importance in contemporary artistic creation." See the *Rendez-vous contemporains* website, accessed April 13, 2022, http://rendezvouscontemporains.com/anciensite/rdv/archives/Entrees/2010/5/21_Eliane_Radigue_%2B_Lionel_Marchetti.html.

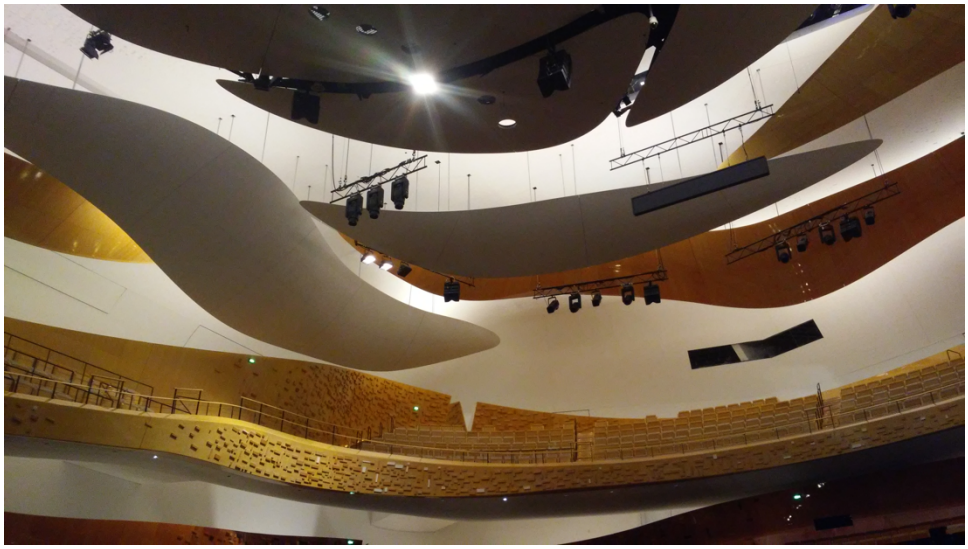
Océan, was premiered in 2015, and it is part of the composer's most recent (and eponymous) project, *Occam Océan*, discussed in the preceding chapter of this dissertation.

When Blondy invited me to attend the rehearsals at the Philharmonie for Radigue's organ piece he warned me, ironically, that the Grande Salle was "not yet his regular practice space."[3] While the pianist has quite a prominent international career, his artistic activities tend to gravitate around spaces and scenes of the underground, or more generally linked with experimental and improvised music.[4] Playing Radigue on the Philarmonie's organ was somewhat of a novelty.

Concerning Radigue more specifically, this invitation from the Philharmonie inscribes itself in the recent tokens of appreciation for the composer's oeuvre from more upperground, or traditional institutions.[5] As previously discussed, for the majority of her career Radigue created music in what composer Tom Johnson has described as the "fringe of Paris."[6] Or, to perhaps nuance Johnson's statement, Radigue has, for the longest time, composed in and for more domestic spaces that were *put* out on the margins, away from consideration.[7] Fifty years ago, the SACEM committee was debating

[3] Discussion with the author, September 24, 2019.
[4] In addition to being a founding member of *Rendez-vous contemporains*, Blondy has, for example, co-organized the *Crak* festival in Paris; he has been a guest of the GRRIl [Grand groupe régional d'improvisation libérée] in Rimouski, Québec; and he regularly collaborates with experimental musicians, improvisers and artists amongst which we find Martin Tétreault, the Hubbub Quartet and Thomas Lehn. See Blondy's website, accessed April 13, 2022, https://www.fredericblondy.net/projects.html.
[5] One of the strong examples of these tokens of recognition—at least for Radigue—took place in fall 2020, during IRCAM'S *Manifeste* festival where Radigue's music, career and oeuvre was the subject of a 3-day celebration. See advertisement for the events at Centre Pompidou, accessed April 13, 2022, https://manifeste2020.ircam.fr/en/person/eliane-radigue/.
[6] Tom Johnson, writing for the Village Voice in 1982, published a column entitled "On the Fringe of Paris: Pierre Marietan, Eliane Radigue, Horacio Vaggione." See Tom Johnson, *The Voice of New Music*.
[7] See chapter three of this dissertation for a deeper analysis of this issue. On the gendered implications of how labour is experienced and valued, see Charlotte Bunch, *Passionate Politics: Feminist Theory in Action* (New York: St Martin's Press, 1987); and Silvia Federici, "Precarious Labor: A Feminist Viewpoint."

whether Radigue's art could be considered music.[8] Today, her pieces resonate in the Philharmonie's Grande Salle Pierre Boulez [Figure 1].



Figures 1 and 2. Photos of the Grande Salle Pierre Boulez taken by the author on September 23, 2019. Picture taken from the stage.

(lecture, In the Middle of a Whirlwind 2008 Convention Protests, Movement and Movements, accessed April 21, 2020, http:// inthemiddleofthewhirlwind.wordpress.com/precarious-labor-a-feminist-viewpoint/).

[8] Roughly ten years after her first piece *Asymptome versatile* (1963) is composed, Radigue applied to SACEM, on January 12, 1973. She was admitted on October 3, 1973. See the introduction of this dissertation for more information on this matter, as well as the online SACEM archive, accessed April 13, 2022, https://musee.sacem.fr/index.php/Detail/entities/11971.

An overarching goal of this chapter is to point towards the recent contexts in which Radigue's oeuvre is received. While a detailed analysis of the cultural fields in which Radigue's music has evolved over the course of her career will be the subject of the concluding section of this dissertation, I use this chapter to lay out important parameters of this recent change in the reception of her work by high-end venues like the Philharmonie. Indeed, nowadays Radigue's music works almost as an entry pass for performers of her music. As in Blondy's example, experimental or free-improvisation ensembles and performers often have access to festivals and diverse events through Radigue's music.[9]

Yet, this change in cultural—and economic—value surrounding the composer's work only tells part of the story. While Radigue is increasingly considered a canonical figure by traditional or avant-garde institutions, these spaces of music creation and dissemination also have, over recent years in the case of the Philarmonie, embraced a renewed politics of inclusion and social action. For example, the *Nuit Blanche* festival in which Blondy was invited to play *Occam XXV* testifies of the the Philarmonie's new politics of aesthetic and demographic inclusion, accessibility, and diversification.[10]

With these contextual considerations in mind, the main aim of this chapter is to bring in a point of comparison with the Bozzini ethnography presented in the previous

[9] One of the case studies of this chapter will address this new "value" of Radigue's music for experimental music performers.

[10] According to a decree of September 24, 2015, the Philharmonie is a musical complex which main goal is to "democratize the access to musical culture," by, namely, "develop[ping] cultural and educational activities for the public to promote equal access to all forms of music and to support initiatives contributing to their knowledge and practice;" by "encouraging the creation of musical works, especially contemporary music," and by "proposing an original transmission model that allows everyone to live a rich musical experience." This experience is meant to have "a positive impact on the development of the individual and [to] encourage the development of social ties." See the Philharmonie's "Missions et projets éducatifs," accessed April 13, 2022, https://philharmoniedeparis.fr/fr/institution/missions-et-projet-educatif.

section of the project. Amongst other conclusions, I highlight how Radigue's extended use of the modular synthesizer reaches out to contemporary performances of her work and leaves its print on both her orchestral and her organ pieces. Like in *Occam Delta XV* for string quartet, the composer's signature style comes into play. All Radigue's pieces, including the ones dedicated to Frédéric Blondy and the ONCEIM ensemble, feature the same fragile and textured mass of sound that she has developed for over half a century with various electronic instruments, chief amongst them the modular synthesizer. As I have analyzed in various chapters of this dissertation, such sound material imposes a high level of patience from its performers, and a certain "let go" or even trance-like feeling during a run through of the piece. Blondy and the ONCEIM musicians are no exception in that regard.

Yet, the two case studies of this chapter on the ONCEIM ensemble and Frédéric Blondy present important differences with a string quartet such as Quatuor Bozzini. A first and most obvious one is the sheer number of musicians, and the technical demands of their respective instruments, that being a 34-piece ensemble, and the organ.

For example, in the ONCEIM case, and unlike Quatuor Bozzini who have played together as a stable and self-sustainable ensemble for over two decades, the free improvisation orchestra requires more flexibility. Partly due to the sheer size of the ensemble, and because ONCEIM musicians do not rely on the orchestra for their daily income, during a tour or even for a given concert it is most likely that not all musicians will be free to join. This requires the hiring of substitutes who are not necessarily familiar with Radigue's orchestral piece. How does this social and technical disposition affect and relate to Radigue's work?

A second aspect of the ONCEIM ensemble worth mentioning is that the artistic director, Frédéric Blondy, does not play in the ensemble. Rather, during performances and rehearsals of the orchestra, he takes the role of the external ear, giving the musicians feedback on how it sounds from the audience's perspective. In the case of Radigue's piece, this is a major element. While the ONCEIM musicians often feel "lost in the sound" like Quatuor Bozzini, Blondy, sitting in front of them during the performance, keeps them out of the trance state discussed previously. Pointing his finger, he cues the different choirs of instruments; lifting and lowering his hand, he indicates the dynamic changes needed to obtain Radigue's typically blurred instrumental entrances.

The second case study of this chapter, on Radigue's organ piece *Occam XXV*, also offers points of divergence with Quatuor Bozzini's experience of the composer's music. On the level of the instrumentation and unlike the string quartet players who intimately know their instrument, for Blondy there are as many organ types as there are concert halls. For example, the Philharmonie electric Rieger organ presented Blondy with a new set of challenges then that which he had encountered with previous mechanical instruments, especially with regards to the Radigue's typically faded and unmarked note entries.[11]

In both *Occam XXV* and *Occam Océan* I am particularly interested in the ways in which Blondy and the ONCEIM musicians' listening strategies compare to the ones that emerged during the Bozzini rehearsals and performances. As in the Quatuor Bozzini case study, I revisit notions of control and decision-making. Yet in this chapter, I investigate

[11] For example, with the mechanical organ on which Frédéric Blondy performed *Occam XXV* in London, at the Union Chapel, the musician could control the fade-ins and outs via air pressure. Blondy, in discussion with the author, September 23, 2019.

how they operate in a solo and an orchestral context. Or, perhaps more basically, I ask: how does one even rehearse a Radigue solo or orchestral piece? How was and is *Occam Océan* transmitted to such a high number of musicians? How does Blondy get attuned to a new organ? Drawing mostly on video recordings, recorded interviews and photos of the rehearsal sessions and the *Nuit Blanche* concert at the Philharmonie, this section of the dissertation offers a condensed summary of Blondy's work at taming an electric organ so that Radigue's music can emerge.

Another difference with the Quatuor Bozzini ethnography is that Éliane Radigue was not present—at least not physically—during the rehearsal sessions. Blondy and I often had the composer on the phone, and the musician sent her recordings and pictures of the work in progress for feedback. Yet, in the absence of other interlocutors perhaps, Blondy shared with me the hick and bumps of his tinkering with the organ: what succeeded, what failed, how he felt it sounded, etc. He also asked me to walk around the empty hall so I could then tell him how it sounded from different perspectives.[12]

These meetings with Frédéric Blondy led me to interview different members of the ONCEIM (five in total). Blondy invited me to attend and film three non-Radigue related rehearsals of the ensemble, as well as one *Occam Océan* dress rehearsal and concert. Subsequent sections of this chapter that address the ONCEIM orchestra

[12] Transcription of the discussion that took place after take three of *Occam XXV,* rehearsal 1:
Frédéric Blondy: It's amazing how the frequencies flow. It wasn't too long at the end? Were the high notes tiring?
Emanuelle M.B.: No, in fact the end was longer than usual, but it was nice.
FB.: Yes, so it was good timing. I don't know what I shortened. I've only done 43 minutes, before I did 48.
E.M.B.: Maybe in the other ones you did—not hesitate—but this time it flowed better.
F.B.: It flowed well, yes. It's good, at the same time 43 minutes is great! [laughs]
E.M.B.: And you've played it 3 times tonight already.
F.B.: At one point your head spins!

summarize their vision of the ensemble, the impact of this large instrument on Radigue's music, as well as Frédéric Blondy's role within it.

As in the previous analysis of Quatuor Bozzini's encounter with Éliane Radigue's music, both case studies provide first-hand insight into how performers react and adjust to Radigue's musical material. Moreover, in the background, I highlight how Radigue's orchestral piece works almost as an entry pass for the ONCEIM ensemble when it comes to festival programs. Similarly, the composer's organ music was hosted by the Philharmonie, an increasingly "inclusive" high-art institution: one that opened its doors to the popular Parisian *Nuit Blanche* and let the flow of the festival's participants in and out of its Grande salle Pierre Boulez to the sound of Radigue's music.

1. THE ONCEIM ENSEMBLE

1.1 The ONCEIM Instrument

The ONCEIM orchestra is composed of 34 musicians from various backgrounds, ranging from more traditional art music to free improvisation, electronic music and jazz. In addition to collaborations with composers who dedicate themselves to alternative modes of music transmission, free improvisation is central to the ensemble's aesthetic identity.[13] Since the orchestra's inception, musicians dedicate time to regular collective free-improvisation rehearsals during which the ensemble confronts itself with, mainly, the aesthetic and technical problems of improvising within such a large and diverse ensemble. How to balance individual knowledge (taken from musicians' different

[13] https://onceim.fr/presentation/, accessed April 13, 2022. As it will be exposed in subsequent sections of this chapter, the tension between commissions and free improvisation is a source of constant debate amongst ONCEIM musicians.

experiences) and common artistic goals is a rich terrain of musical exploration within the group.

The result of these work sessions and the answer to the above question takes the form of collective free-improvisation pieces titled *Laminaires*. As ONCEIM guitarist Jean-Sébastien Mariage has shared with me, this title is taken from fluid mechanics to describe, for example, water flowing directly over the ridge of a waterfall, where the water flows more or less in the same direction, without local differences counteracting each other.[14] True to this metaphor, the ONCEIM free-improvisation creations focus on collective timbre, colour, and dynamic changes, thus renouncing more solo-based styles of improvisation.[15] Far from the hicks, jumps and virtuosic licks of other free-improvisation ensembles, ONCEIM members mostly play together as one big breathing instrument, and their improvisations are driven by slow evolving common textures.

To attain this typical sound, musicians have developed over the years an acute ability to imitate each other, despite—or even because—of the differences in their individual training and artistic experiences. When describing the orchestra, many members shared how, as an instrument, the ONCEIM sound does not only result from its instrumental parts. Indeed, in addition to its foreign mix (electric guitars and electronic instruments mixed with brass, woodwinds, strings, percussions, and piano), the oftentimes opposite performance practises muddle with instrumentalists' usual reflexes. Thus, during free improvisation sessions it is difficult, as violist Élodie Gaudet has shared

[14] Discussion with the author, November 28, 2019.
[15] ONCEIM artistic director Frédéric Blondy even links this particular sound to the influence of impressionism, with its focus on colour and timbre over harmonic function. Discussion with the author, September 13, 2019.

with me, to "mimic visually" what another instrumentalist is doing: "there is something that sounds like the saxophone when it is actually the viola."[16]

While some sounds remain necessarily easily identifiable despite the imitation virtuosity described above, when all the instruments play at the same time—as it is often the case—it becomes difficult for performers to identify where these come from. Therefore, the ONCEIM's performance practice lies not so much in an analysis of what a specific musician is doing at a given moment. Rather, they focus their attention more on listening; on "something much more instinctive" than on the analysis of the movement of another instrument.[17]

In sum, both the eclectic nature of the instrumentalists' backgrounds and the aesthetic drive of the ONCEIM improvisation nourish each other: "instinctive" imitation is facilitated by the diversity of the ensemble, and the overall collective sound that results from these imitations further enables musicians' imitative virtuosity.

Moreover, partly because of the eclectic backgrounds, instrumentation and performance practises within the group, and partly because of the sheer size of the orchestra, ONCEIM musicians are accustomed and very comfortable with not knowing where and how certain sounds are created. Indeed, this performance state of mind, based on instinctive, non-analytical and almost trance-like listening, seems to define improvisation or non-scored based performances for some performers of the orchestra. Mariage shared with me how, for him, improvisation was synonymous with the absence of thought:

> Even with score-based music in fact we will not play twice exactly the same thing; it depends on how we feel, on the state of other musicians. In fact, we

[16] Discussion with the author, December 6, 2019.
[17] Gaudet, discussion with the author, December 6, 2019.

> improvise a lot even when we play score-based music. But still, we try to translate a written text into music. When we improvise, we don't have that text, we can't rely on it. So, for me improvisation is also about not thinking. I think before playing, but while playing I try not to say to myself, "I must do this or that" … it's a state of mind, I don't know if it's instinctive, unconscious.
>
> E.M.B.: Because if you start thinking too much, you have the impression that it slows you down?
>
> J.S.M.: Well, it brings willpower, and for me it doesn't work as well. Especially because when it's improvised, the musician next to me might have another thought. When there is a score, there is a common thought. There is something that links. If there is a thought in the improvisation, it doesn't fit anymore.[18]

As concerns Radigue's music and somewhat contra to Mariage's comment, although it is transmitted orally, it arguably offers a "text" to follow. Yet what is important to remember from Mariage and Gaudet's comments is that ONCEIM musicians already thrived towards this "loss of self" state of mind that is triggered by Radigue's sound material during performance, even before meeting with the composer.

As a reminder, in instrumental pieces by Radigue musicians often essentially play the same pitches, but a few cents apart. When held, these "out of tune" pitches produce patterns of interference, or beats, that can sound like a distinct note. During the performance, the inevitable accumulation of these frequencies renders vastly more complex the distinction between the notes being played on the instruments and the notes that result from these frequencies as they brush together. Playing a Radigue piece requires virtuosity, to be sure, but one that is above all anchored in listening: musicians do not necessarily try to understand who is producing a sound or how a sound is produced.

[18] Discussion with the author, November 28, 2019.

In sum, like the Quatuor Bozzini, the ONCEIM's chances for "success" at Radigue's music was greatly heightened by their preceding artistic experiences. The ensemble's focus on collective timbre, colour and relatively slow dynamic changes, as well as the way they embrace intuitive listening practices paved the way for Radigue's oeuvre.

1.2. *Occam Océan* and Transmission

Faced with such a large group, Radigue decided to meet each choir of instruments individually at her house to transmit her piece. My interviews with the ONCEIM members revealed that, although these training sessions with Radigue were quite similar to the ones experienced by Quatuor Bozzini, certain parameters differed.

First, while already familiar with Radigue's music from a listener's perspective, no one in the Bozzini string quartet had played Radigue before the first rehearsal sessions at the composer's apartment. As I previously explained, Quatuor Bozzini is an exception in that matter: usually, performers meet Radigue individually and learn an *Occam* solo piece. When larger ensemble pieces are composed, they are created through the combination of two or more existing solos. This means that, in these cases, every musician knows Radigue's music very intimately.

In the ONCEIM case, due to the size of the ensemble, Radigue could not imagine herself tackling the piece with the whole ensemble at once. An exclusively individual work with each instrumentalist was also not an option. One mode of transmission was too far from what the composer had always done and cherished: an intimate collaboration with the instrumentalist and his or her instrument, in the welcoming atmosphere of her

home. The other would have taken too much time and energy.[19] Radigue thus decided on a hybrid solution: while she first met the musicians one by one for individual meetings, she then had the musicians come and rehearse as a choir of instruments. However, within the string section for example, at least one musician had already collaborated with Radigue on another *Occam* piece; this player's experience would make a difference. Violist Élodie Gaudet shared with me how, as a novice to the composer's style, the presence of an experienced *Occam* player facilitated the transmission:

> When we met the first time with Éliane there were small nuances of understanding [between us strings]. Éliane doesn't look at the technique: she doesn't check if we bow parallel or circular. She listens to the sound proposal. . . . Yes, and I remember, she told us to adapt to the environment, to pay attention to the resonance—well, one could say that everyone does it. But in works whose composers are dead, we rarely have the opportunity to talk to them about the piece [laughs]. So, in a way, it's quite precise [Radigue]. Also Deborah [Walker, cellist in the ONCEIM] for example, she had already worked a lot with Éliane and I think that she had a certain reading which made it possible to follow a little her way of deciphering Éliane's language. It was like an entry, a window opening.[20]

In sum, during rehearsals with Radigue, in addition to having direct contact with the composer, some instrumentalists benefited from a "middleman" musician. As per the above quote, this transmitter role has proved beneficial to the success of the encounter between ONCEIM musicians and Radigue, particularly for performers who were not familiar with the composer's style of music transmission.

Moreover, this "middleman" role has been further perpetuated within ONCEIM since *Occam Océan*'s premier in 2015. While during the meetings with Radigue ONCEIM musicians that were familiar with her music acted as facilitators, or translators of the

[19] Radigue, in discussion with the author, fall 2019.
[20] Discussion with the author, December 6, 2019.

composer's aesthetic, now all ONCEIM musicians who have learned the piece take on that position.[21] ONCEIM members will often teach their part to others in the ensemble, ones who have not attended the "initiation"—to take the expression from one of the musicians—at the composer's apartment. When someone must be replaced during a tour, or when new members are included in the ensemble over the years, each choir of instruments is responsible for the up-keeping of its own part in the *Occam Océan* piece. Within the ONCEIM orchestra, the transmission aspect inherent to Radigue's *Occam Océan* project is more readily fulfilled.[22]

As briefly mentioned, this transmission partly stems from the practicalities of a large ensemble: with 34 musicians, the need for a substitute for a given concert is likely. Moreover, the probability of needing substitution is heightened by the fact that, within the free improvisation ensemble, no musician relies on the orchestra gigs for substantial income. ONCEIM musicians have other projects at hand and must balance their schedules between a certain devotion to the orchestra, and their other—more lucrative—gigs.

[21] For example, cellist Anaïs Moreau who joined the ensemble in 2016 learned the piece from the other string players and met Radigue only during the dress rehearsal before the concert. Moreau, in discussion with the author, October 16, 2019.

[22] For reasons ranging from a deeply personal attachment to Radigue's piece to economic and programming issues, smaller ensembles, or soloists of Radigue's music, generally resist transmitting their dedicated piece to other fellow performers. For example, clarinetist Carol Robinson shared with me how, precisely because Radigue's music demands such intense work, the piece becomes extremely personal. While teaching the piece is not out of the question, this emotional feeling that links performers to their Radigue work makes further transmission something worth pondering. For similar reasons, Quatuor Bozzini has up to now refused to transmit their piece to another string quartet. Moreover, and without any doubts regarding Quatuor Bozzini's deep attachment to Radigue's music, transmitting their string quartet piece would have tricky economical consequences: as previously mentioned, Radigue's music is now highly prized on the contemporary music scene. Carol Robinson and Clemens Merkel in conversation with the author, October 2017 and Fall 2019, respectively.

While these practical needs may seem somewhat obvious, their effect on the ensemble's appropriation of Radigue's piece is perhaps less intuitively understandable. The following parameters will be further discussed in the next section of the chapter. First, musicians strongly feel responsible for and committed to the orchestra: ONCEIM is their band. While the orchestra's financial disposition on its own cannot account for this feeling of belonging, it does act as a bonding agent for many musicians. As trumpet player Louis Laurin has shared with me, "we all feel like it's our band, or why else would we go through all this trouble. . . . it can be such a hassle! [on est à l'arrache!]"[23] Second, the musicians' deep identification with the ONCEIM, in addition to the transmission process exposed previously, shape their relationship to Radigue's music. While the musicians are deferential to the composer, when someone gives ONCEIM a piece, it becomes theirs to modify.

1.3. ONCEIM as a Social Unit

During my interviews with ONCEIM members, a common theme was the influence of the musicians' diversity in background on the structure of the ensemble, and the nature of the relationship between instrumentalists. First, as a reminder, within the orchestra there were classically trained and jazz trained musicians, as well as performers from the contemporary and free-improvisation scene, and even some who learned to improvise directly while joining the orchestra. Consequently, according to Laurin, ONCEIM is no "all-star" improvisation ensemble. This, still according to Laurin, is the main reason why ONCEIM is thriving and active after over 10 years of existence: there is a "unique social

[23] Conversation with the author, fall 2019.

ecosystem […] a strong inner synergy" based on a more horizontal relationship between musicians.

Echoing Laurin, many ONCEIM musicians have compared working within ONCEIM to the relative horizontality of chamber music relations, where musicians share more equally the responsibility of aesthetic success and economic survival.

> Playing in ONCEIM is a musical experience but mainly a social one: how do you manage to be on tour with 27 people with touring conditions that are not … we share rooms, it's a hassle. Also, it's our group. We share the responsibility of failure, so we don't want it to go wrong. There is no detachment. We must not forget that when ONCEIM started, we were not paid for 4 years. And the little we are paid now with ONCEIM, it's not with this money that we are more motivated or less motivated. It's the originality of the music we make and the originality of the inner musical system that makes us continue. Because it's always complicated to work with ONCEIM![24]

Indeed, given the nature of ONCEIM's musical aim (mostly non-scored based, alternatively transmitted or free improvised music) as well as the variety of backgrounds and experiences, such horizontal relationships between the musicians does not come without its challenges. As one of the string players shared with me, "some call it chamber music, but with 34 members, many would call it anarchy!"[25]

> Benjamin Dousteyssier: That's what improv is. There are always guys who are not happy. I remember times when Fred [éric Blondy] tried to direct the improvisation towards his aesthetic tastes and so on, but it didn't work, there were guys who complained [qui gueulent]. It's a bit of an unsolvable thing and I don't think it has to be solved. It's interesting. I remember the debate … originally ONCEIM was created to do improv. But now we also do commissions because financially it's much more feasible to do commissions. It's easier to find gigs … playing Radigue than presenting improv [laughs]. So there are some who complain because they want to do more improv, because the commissions are too written, not well written, not written enough.
>
> E.M.B.: But at the same time it shows that you care about it.

[24] Laurin, in conversation with the author, fall 2019.
[25] Gaudet, in conversation with the author, December 6, 2019.

> B.D.: Well, yeah, that's it. We're all here, we come, we don't get paid… Well, it works, I like what we're doing, even if we all complain.[26]

Although many discrepancies could be listed between the ONCEIM and a more traditional chamber music ensemble, what the musicians here highlight is the similarity in aesthetic and economic responsibility, and artistic control. Yet, in the ONCEIM, this notion of artistic agency is taken somewhat further than in a more tradition chamber group. Musicians have shared with me how, when a composer works with them, after a while the ONCEIM will inevitably cut out sections, change parts and make the piece "their own."

Such hands-on and active relationship with a composer's music sometimes stems from the urgency of the moment: perhaps the composer has not quite understood the unique functioning and the variety of backgrounds within the ONCEIM, and musicians have to adapt the score in a few days' work. Other times, the ensemble changes a piece over time, as in the case of *Occam Océan:*

> Even Éliane's music, now what we play, I have the impression that it doesn't have much to do with what Éliane told us at the start. In fact, we took Éliane's music and we did something else. After a while, we made the piece our own. There is something about the form that she proposed but I think it doesn't work. Maybe we'll get there. You know the piece, it starts with the guitars, the percussions, the strings, the brass, we take turns, then it stops, then we redo this same part, and at the end we do the tutti. But, according to me, the second part is useless, we have already heard it! The beginning is very beautiful, we have our individual sections, and then we should immediately do the tutti. For me this second section is useless, it's a kind of repetition. After a while, we'll drop it. That's the risk—and I think it's interesting—for a composer to work with the ONCEIM, because after a while we're going to appropriate the piece. And in fact, it proves that we are into it, that we like it and feel committed.[27]

[26] Dousteyssier, in conversation with author, fall 2019.
[27] Laurin, in conversation with the author, fall 2019.

In sum, the social disposition of the ONCEIM, one that, despite the size of the ensemble, presents features that resemble chamber music dynamics regarding responsibility and decision-making, shape the musician's relationship with Radigue's music. This appropriative impulse is heightened by the transmission process described previously: musicians take responsibility both in the ensemble in general, and in the transmission of the Radigue piece. Both Radigue and the orchestra are theirs to care for.

While such a relationship with a composer's oeuvre could, from a more traditional standpoint, be considered as a lack of deference, in the case of Radigue's *Occam Océan* project this is quite the opposite. Indeed, this type of appropriation as seen in the ONCEIM case is no "risk," as Laurin put it, for Radigue. Rather, it represents exactly the essence of the composer's music transmission, and music in general.

As discussed in other parts of this dissertation, playing Radigue's music or transmitting her work does not consist in making a copy of the composer's initially exposed plan. Radigue's indications are, in essence, more of a *parcours* proposition, a "scaffolding"—to take the composer's words—that musicians can discard when they feel they have integrated the material. Performers thus dedicate their energies to playing and teaching the Radigue sound and, more importantly, to listening like the composer. Learning a Radigue piece is more about learning the composer's sensitivity than anything else: they learn and teach the patience needed so that, from delicately held notes, partials and overtones can emerge.

In this way, the ONCEIM orchestra was not only an adequate ensemble for Radigue's music from an aesthetic perspective. Socially, their deep sense of

responsibility led them to appropriate and integrate Radigue's material, thus answering one of the main calls of the composer's project: *Occam Océan*, through this process of appropriation and transmission, unfolds and will continue to unfold beyond the composer, both in time and in compositional control. It is, per Radigue's wish, a never-ending project.[28]

1.4. Listening to Radigue within ONCEIM

To this point, my description of the ONCEIM's aesthetic and social position have had many resonances with that of Quatuor Bozzini. Although there were obvious differences in instrumentation and artistic experience, at the core the string quartet and the free-improvisation orchestra both share performance practice habits and group relationships that have enabled them to understand and play Radigue's oeuvre.[29] However, ONCEIM presents one major element of divergence with Quatuor Bozzini: Frédéric Blondy.

In ONCEIM, Blondy acts as the artistic director and, although the ensemble does not present the same hierarchical divisions of a traditional orchestra, he still holds some authority, be it only as an external ear. As previously explained, Blondy does not play in the ensemble. Rather, he listens to the global sound during rehearsals, and gives feedback. That feedback is then either contested or accepted by certain members of the ensemble. Debates and discussions ensue, and compromises eventually emerge.

[28] See "Éliane Radigue Parcours de l'Œuvre," base de documentation sur la musique contemporaine b.r.a.h.m.s, last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#parcours.
[29] As a reminder, playing a Radigue piece is not a given, even after a performer has met with the composer. Should there be a lack of understanding between the composer and the instrumentalists, Radigue reserves herself the right to not "sign" the work.

For example, as regards to the style of improvisation illustrated by the ONCEIM's *Laminaires*, not all musicians agree on the optimal level of homogeneity in texture. Cellist Anaïs Moreau has shared with me how, according to her, sometimes the improvisations would benefit from more individualistic statements:

> I find it very interesting all this material that we build together, it's true that we are very reactive to each other and all that, but then the individuality is lost a little bit. Sometimes you need a solo! In the ONCEIM it's not very clear sometimes, for me it would be important to have an individual speech—and it can be as a smaller group—but to have things that emerge. It sometimes lacks a bit of relief. And Fred, he is outside, and he gives us his feedback. It's reassuring, but at the same time he's still the outside ear…[30]

In general, Moreau's comment reinforces the notion that, in the ONCEIM, musicians take it at heart to participate in the aesthetic development of the ensemble. Like her other colleagues, she constantly puts into question what they are doing as a group, what kind of music they are producing, how they should move forward, etc. Moreover, still according to her comments, while Blondy's role does not align perfectly with the hierarchical divisions of a more traditional orchestra, he undeniably occupies a different position authority-wise, be it only because of his listening position.

Indeed, according to my discussions with the ONCEIM musicians and based on my observations of the ensemble's rehearsals, on the level of artistic decisions Blondy's opinions are respected as much as any other musician's ideas. During a session, the ONCEIM will dedicate an impressive amount of time to—often chaotic—discussion, where authority seems more to be based on personality traits than on any predetermined hierarchy within the ensemble, as it would be the case in a more traditional large ensemble. Yet this mode of organization—while seemingly completely undisciplined and

[30] Moreau in discussion with the author, October 16, 2019.

inefficient from an outsider's perspective—nonetheless give rise to this feeling of belonging, so important to the core of the orchestra's existence.

However, while Blondy's relationship with the other members of the ensemble works in a horizontal fashion, it remains that he is often the "outside ear." The authority thus lies in this privileged outsider position, closer to what the public hears, then in a title per se.[31] Blondy thus acts as a point of reference and as an imaginary public for the orchestra.

1.5. *Occam Océan* and Frédéric Blondy

Concerning Radigue's *Occam Océan* piece more specifically, Blondy's position is taken further. Not only does Blondy give his impressions after the performance; he "conducts" the piece.[32] Two interrelated reasons lead him to act this way. First, given the size of the ensemble, it is easier for the ensemble to perform the piece with a guide. While a feeling of trance, or at least a certain "let go" during a performance of Radigue's music is most likely, given the size of the ensemble it would be very easy to lose track of the piece's unity. If Radigue's music, with its signature overtones and resultants, renders it quite complicated to perform within a string quartet, the situation is not simpler within an orchestra.

Second, to recall a point made earlier, Radigue's music presents a completely seamless aesthetic. In *Occam Océan*, each choir of instruments works as a module. The first and second sections of the piece each feature an instrumental choir by itself, and

[31] Moreover, during rehearsals of improvisations, Onceim musicians often take turn being this outside ear. See "Benjamin Duboc nous parle de l'Onceim," YouTube, February 9, 2020, https://www.youtube.com/watch?v=-GwDYy4GS2M.

[32] As I will show in further detail in subsequent sections of this chapter, the way Blondy conducts has little to do with traditional ways of conducting an orchestra.

these fade in and out of each other. The guitars start the piece: they fade in from silence, playing tremolos. Then, when they feel their choir solo has lasted long enough, they fade out to leave space for the percussion who, in turn, seamlessly crossfade into the disappearing guitar sound; this process continues with all the other choirs of instruments in the orchestra.

Essentially, Blondy's role is to make sure that, from the audience's perspective, these crossfades between the different instrument choirs are played in accordance with Radigue's aesthetic: that the entries go almost completely unnoticed. A particularly challenging part of *Occam Océan* is the brass entry. Simply sitting in front of the orchestra, hands on his laps, listening, Blondy must have the patience to let the string section hold their own long enough (and loud enough) for the whole brass choir to enter completely unnoticed. When he feels the string material has built enough resonance in the concert space, he points to the brass. When Blondy chooses just the right moment for their entry, as was the case during the *Crack* Festival performance that I attended, the colour of the brass choir is unrecognizable. Indeed, from the audience's perspective, this instrumental entry is first noticed by a very slight change in the timbre of the orchestra—one feels that something opens in the texture. It is only after a few minutes (or more) that, still from the audience's perspective, one can finally link the brass sound to its original source.[33]

In light of this very brief description of the unfolding of Radigue's piece, one can understand why Blondy and the composer decided to place the ONCEIM artistic director

[33] This particularity is very typical of Radigue's music, both electronic and instrumental. See "Éliane Radigue Parcours de l'Œuvre," base de documentation sur la musique contemporaine b.r.a.h.m.s, last modified Februray 3, 2020, https://brahms.ircam.fr/fr/eliane-radigue#parcours.

in the listener's position. Otherwise, the piece is practically impossible to perform. With all the mix of frequencies entailed by Radigue's music, there is almost no way, for example, for the strings to know when and how to fade out.

Nonetheless, this external position from Blondy's part is the subject of a (friendly) envy from his fellow ONCEIM musicians: playing Radigue's orchestral work is, according to Gaudet, sometimes "frustrating" from a performer's standpoint in the ensemble:

> The listening experience is so strong [from the audience's perspective]. We [the strings] think it's great, but you want to take more time to listen to other families of instruments. So that's a big frustration to be inside. It's rare for a musician to say he would like to be more outside than inside [laughs]![34]

Yet, and without taking anything away from Gaudet's experience as a performer of Radigue's music, in a way Blondy's position is not so different from the one held by other musicians of the orchestra. With all the virtuosity, the patience, and endurance that it entails, in Radigue's music performers mostly wait, and listen. Like the composer herself when she was working with the ARP synthesizer, ONCEIM musicians—including Blondy—must find the patience to create a framework in which it is possible to contemplate the natural micro-oscillations that exist between frequencies.

While this performance practice attached to Radigue's music proves true for basically all performers of her music, ONCEIM musicians can always rely on Blondy for reference. They, of course, produce the sounds that are emitted during the performance of the piece. Yet, in a way the relationship between the ONCEIM and Blondy, during the performance of *Occam Océan*, is almost that of an instrument-instrumentalist. Without wanting to push the metaphor too far, each of the instrument choirs in the ensemble

[34] Gaudet, in conversation with the author, December 6, 2019.

almost takes the role of a module, very much like the ones used by Radigue in her ARP 2500. Blondy, taking the role of an Éliane Radigue musician (even more so than a traditional conductor), activates the "modules," fading them in and out, as if they could be controlled by potentiometers. Between crossfades, Blondy listens, hands on his laps, like most of the audience members attending the concert.

The image of the orchestra-synthesizer may seem far-fetched. Yet, one must remember that for Radigue, until the early 2000s, electronic instruments were the only interface through which she could compose. From this perspective, it is not so surprising that some elements—in addition to similar sound material—permeate her more recent instrumental pieces. Not only do ONCEIM musicians function like the modules of an electronic instrument; they even listen in a "modular" way, limited as they are to hearing mainly their own choirs of instruments. Furthermore, the way Blondy acts during concerts and performances is very much akin to Radigue's attitude towards her own electronic instruments. He oscillates between the position of the performer (when his gestures have an impact on the sound) and of the listener, or even audience member (when he merely sits there, and listens).

In sum, Blondy's role, during the performance of *Occam Océan*, constantly crosses the border between performer/conductor and listener. From the audience's perspective, Blondy's bodily attitude is quite captivating. Apart from his very simple hand gestures when crossfades are needed, one only sees a man sitting on a high bench in front of the orchestra, hands down, listening.

2. *OCCAM XXV*

In general, the composer's sound material participates in weakening the boundaries between the performer and the listener/audience member. During the course of my ethnographies on musicians' relationship to Radigue's music, I observed how this particular trait of Radigue's music operates within yet another of her instrumental pieces, *Occam XXV*. The performer entitled to this work is none other than ONCEIM's artistic director, Frédéric Blondy. Yet with *Occam XXV*, he is a soloist, and he plays the organ.

While rehearsing his Radigue's organ solo piece, *Occam XXV*, Blondy told me, speaking of the audience's reaction to his performance: "when you see a guy just sitting there listening, you may think it's a good idea to listen, too."[35] This could have easily been applied to Blondy's role in the composer's orchestral work, *Occam Océan* or, arguably, to any of the composer's instrumental pieces. Radigue's music is all about listening to the textures that emanate from held tones. Like Radigue herself did with her synthesizers, Quatuor Bozzini, ONCEIM and Frédéric Blondy all commit to this type of virtuosity. Visually, this virtuosity translates to the audience only through extremely slow, careful and discreet gestures, to the point where musicians often seem as if they are not moving at all.

Yet, the Quatuor Bozzini and the ONCEIM do have an instrument in their hands. Similarly Blondy, when conducting the ONCEIM ensemble, does point, raise a hand, and gesture for the instrumentalists to fade in and out. In *Occam XXV* (for organ), and

[35] Conversation with the author, September 25, 2019. Unless otherwise indicated, all quotations from Blondy are taken from discussions between the organist and the author during the Philharmonie rehearsals, either on September 23 or 25, 2019.

especially in the performance that I documented at the Grande Salle Pierre Boulez, one does at times wonder if, really, this "guy" is not just "sitting there."

Indeed, due in equal parts to the size of the hall, to the look of the instrument and to its electric mechanism, it is not at all obvious during the performance to understand how Blondy is controlling the sounds, or even if he is controlling them at all.

Moreover, contrary to, for example, a string quartet like Quatuor Bozzini, while playing at the Philharmonie, Blondy could not freely "mistune" the organ registers with a simple slide of the finger on the fretboard. The musician was faced with, to use an electronic metaphor, a hardwired instrument.

To simulate other instruments' tuning flexibility Blondy had to find the errors or the faults between the registers: a strange vibration, a prominent harmonic, or even the resonance of a register in the concert space. Having found these particular sounding sections of the instrument, the musician then overlaid or combined them in a way that could overcome the organ's naturally outspoken, or marked, note entry.

This resulted in a game of trial and error between Blondy and the Philharmonie's organ through which he came up with a written plan for the performance on that specific instrument. He first classified the organ's registers that, when combined with each other, created the interference patterns typical of Radigue's music. Starting from there, Blondy penned down which combinations of stops worked best to hide any marked entries, as well as the general order of entrances in accordance with the narrative of Radigue's piece.

Blondy's work at the Philharmonie was not his first attempt at *Occam XXV*. The piece had been premiered at the Union Chapel in London on October 13, 2018 after

rehearsals with Radigue in Paris on the Église Saint-Merry organ. Yet, the Philharmonie's Rieger organ presented Blondy with an additional challenge with regard to Radigue's aesthetic: it is an electric instrument with which it is extremely difficult to fade in sounds. In this second case study, I document the game of trial and error between Blondy and the Grande Salle Pierre Boulez's organ; I follow Blondy from his discovery phase of the instrument, all the way to the *Nuit Blanche* concert.

2.1 The Rieger Organ and Blondy's Choice of Notes and Register

When I first met up with Frédéric Blondy for the rehearsals at the Philharmonie, he already had three previous rehearsals with the organ. During these sessions, he had tested each register of the Rieger organ to rule out, for example, the ones that he thought were too "nasillards" for the piece. He then took note of the registers that "resonated" with each other and made graphs of pitch and stop combinations that created, in the concert hall, the micro-vibrations that are so typical of Radigue's aesthetic. As seen, this means that, when first put in contact with a new organ, Blondy's task is to discover what is usually considered as "faults" or quirks of the instrument: this is where he is most likely to find the beatings required for *Occam XXV*.

With the Rieger organ specifically, Blondy shared with me, delighted, how the quality of the high pitches enabled him to explore the whole ambitus of the instrument, all the while keeping the sound "très très joli," in contrast with some organs where "the higher notes can be quite harsh."[36] Regarding Radigue's piece, the fact that the higher

[36] Indeed, this is a known advantage of the Philharmonie's instrument. Inspired by French organ builder traditions of the 19th century, the Rieger's harmonization, "discretely favours the soprano register." See "L'orgue Rieger de la Philharmonie de Paris," Orgue en France, accessed April 13, 2022,

notes remain enjoyable was a great relief for Blondy. The sound narrative of *Occam XXV* is, precisely, one base in the exploration of the whole register of the instrument. Oozing from silence, the piece explores the depths of the low notes of the instrument, gradually making its way to the high register, and finally ending on a sustained high note before returning—almost imperceptibly—to silence. *Occam XXV* is a sound journey from depth to surface, to give a water image dear to the composer and, as it is the case with all the composer's pieces, from silence to silence.

Yet, while Blondy did not have to come up with strategies to mellow down the harshness of the high register, the Rieger's electric mechanism presented him with a series of other challenges, namely that of the preciseness of the attacks. At the Union Chapel in London, Blondy told me, the organ was a mechanical instrument. This meant that the note entries could be faded in and out by means of controlling the air pressure. With the Rieger, this was not an option: the notes "spoke out" vividly and precisely as soon as Blondy's finger touched the keyboard.

The Rieger builders did come up with a way to create dynamics with their instrument. It was conceived with, according to Blondy, very preformative *boîtes d'expression* and *jalousies*, thus muting or enhancing almost all the registers of the instrument.[37] Blondy gladly used these dynamic enhancers throughout the piece. Nonetheless, these *boîtes d'expression* do not affect all the register of the organ.[38] For

https://www.orgue-en-france.org/linstrument/articles-linstrument-orgue/lorgue-rieger-de-philharmonie-de-paris/.

[37] *Boîtes d'expression* are cases with movable walls (*jalousies*) found inside the organ. They are operated by a rocking pedal, called *pédale d'expression*, located in the middle and above the pedalboard. The organist activates the pedal to produce crescendo and decrescendo effects by opening and closing the shutters.

[38] In the Rieger organ, the *Recit*, the *Positif*, and the *Solo* keyboard are expressive. The stops found in the *Pédale*, with which Blondy starts *Occam XXV*, do not have *boîtes d'expression*.

example, the beginning of the piece, which is played on the low notes of the Rieger, are not affected by the *jalousies*. This means that, to achieve Radigue's seamless aesthetic, Blondy had to play a hide-and-seek game for each note entry.

For example, Blondy decided to start the piece in register 32 (*Contrebombarde*, on the pedalboard) with a C and a D.[39] At this register, the C is not heard as a pitch, but rather as air beating. Blondy let this beating fill the hall and, when he felt time was right, he managed to let go of the D imperceptibly by engaging simultaneously another stop. Since there are no *pédales d'expressions* in this low register, the beginning is extremely difficult, and the only way to attain Radigue's seamless aesthetic is to undergo this hide-and-seek approach to sound.

Many parallels can be made between Radigue's synthesizer music and Blondy's approach to the organ. In addition to various comments during my discussions with the musician concerning, for example, the combinatory nature of the piece (between different stops), Radigue herself said, after discussion with Blondy: "It's like my pieces for the ARP, but without potentiometers!"

Indeed, playing *Occam XXV* is akin—concentration-wise—to playing Radigue's electronic music, but live. In absence of potentiometers or their equivalent in the form of air pressure (as with a mechanical organ), Blondy developed a strategy based on both the combination of different organ stops that are likely to emulate this "fade-in" aspect of the composer's music, as well as on a listening strategy that relies on the response of the concert hall.

[39] As a reference, the notes played at register 8' sound at their normal tessitura. The 32' register sounds two octaves lower than the note's usual pitch.

Moreover, as previously explained, Blondy dedicated the rehearsals to the building of a plan—or score—for *Occam XXV*, where all the combinations of stops are listed for the unfolding of the Radigue piece. Yet, the success of the piece relies as much on Blondy following the written plan as on his listening to the response of the concert hall:

> "It's a question of timing, as much as of the plan. I have a plan, but it can only work if I activate a certain stop at the right time. Otherwise, it comes out too much. The expression pedals are not always marked."

Thus Blondy, as in all other Radigue pieces, must have the patience to listen to the sounds as they fill the hall and, with a sense of timing that only a very concentrated ear can grant him, change the stops at precisely the right moment, lest Radigue's sound texture risk being bumped by an outspoken entry.

2.2 Score, Time, and Focussed Attention

Concretely, Blondy's plan—or score—for the performance of *Occam XXV* on the Rieger organ takes the following format [Figure 3]:

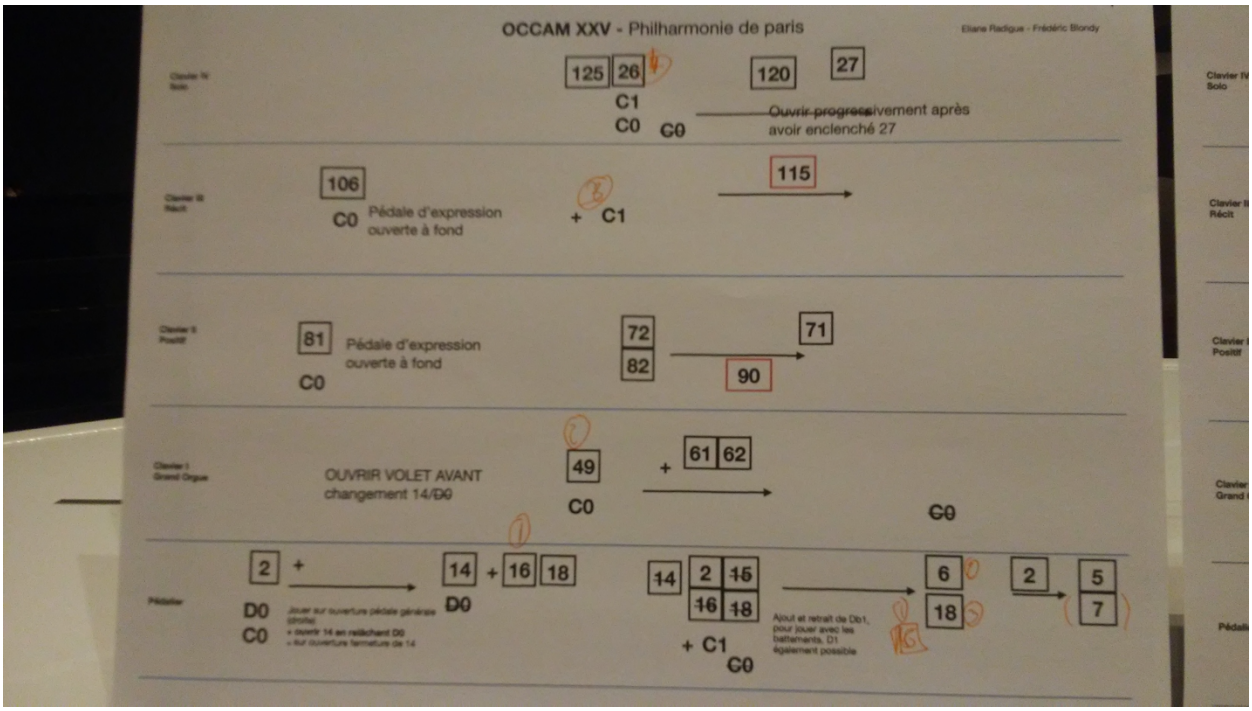


Figure 3. First page of Blondy's *Occam XXV* plan. The score is separated in five sections that correspond to the different zones (keyboards and pedalboard) of the instrument (Pédalier; clavier I Grand Orgue; Clavier II Positif; Clavier III Récit; Clavier IV Solo). Blondy then wrote the played pitches in the bottom section of each of these zones (all C and G), as well as the stops that he meant to activate with these pitches.[40]

On one level, the mere presence of this score on the stand of the organ is quite novel for an *Occam* piece, let alone for any of Éliane Radigue's acoustic music. Again, the most obvious parallel can be traced to Radigue's work with the ARP 2500. For the sake of clarity and to better understand the similarities between the two approaches (that of Blondy and of Radigue), the following paragraphs offer a brief overview of Radigue's own preparation for her pieces with the synthesizer.

[40] Photo taken by the author. Blondy chose C and G for the following practical and narrative reason: since *Occam XXV* is a journey from depth to surface, it made sense to use C, which is the lowest note on the pedalboard. Moreover, since this low C—at the register at which is played at the beginning of the piece (32')—is heard as air beating rather than as pitch, Blondy allowed himself to play whole tones (hence the D, mentioned earlier) without interfering with Radigue's usual sound material (i.e., without "sounding" a whole tone interval). In other words, the neighboring D added extra interferences, and somewhat thickened this already "air beating" low C.

Indeed, Radigue would make a graph of the different inputs to the ring modulators as well as the outputs to the frequency modulation systems before undergoing the recording of a segment of her electronic piece on tape [Figure 4, 5, 6 and 7].

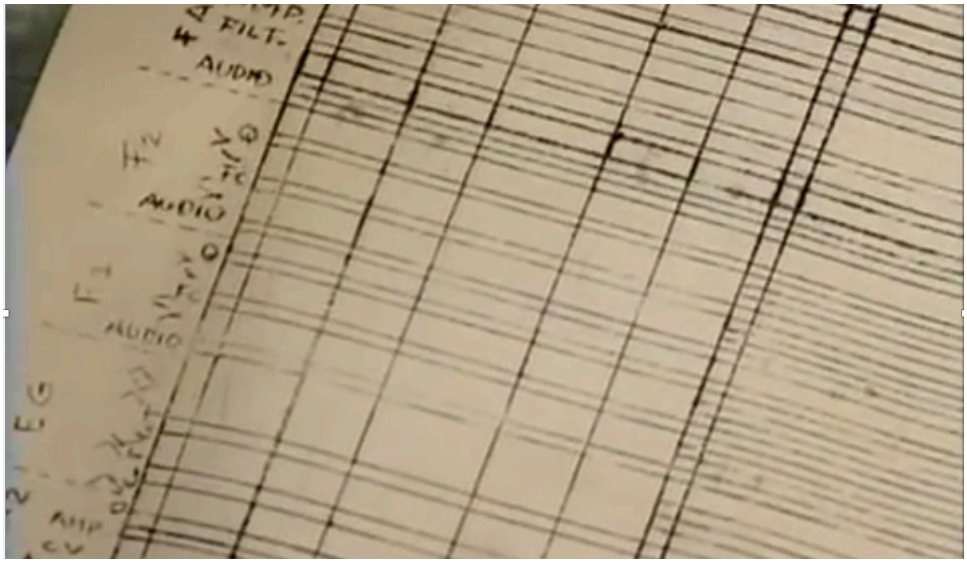


Figure 4. Screenshot of Eliane Radigue's plan for an ARP 2500 synthesizer piece. [41]

Figure 5. Screenshot of Eliane Radigue's plan for an ARP 2500 synthesizer piece, with Radigue showing how she reads the score.

[41] Figures 4, 5, 6 and 7 are taken from "Eliane Radigue," IMA Fiction Portrait #04, video, 14:43, 2006, https://www.youtube.com/watch?v=lcy5fLcAsQQ&t=3s.

Figure 6. Screenshot of Eliane Radigue unrolling her scores for the camera. Once this plan was thought out, Radigue would then set up her ARP 2500 synthesizer accordingly [Figure 7].[42]

Figure 7. Eliane Radigue at her ARP 2500 synthesizer, explaining to the cameras how she proceeded once the "plan" was thought out.

[42] The ARP 2500 (Figure 7) offered a colour-coded matrix patching system for interconnecting functions on the instruments without the tangle of patch cords found in other manufacturers' products of the time, like the Buchla Box. On the picture of the ARP, the matrix patching system is what one can see below and above the round knobs. Each rectangle of the patching system has a set of colourful pin-like objects that can be moved around. Instead of connecting each module of the synthesizer with a bunch of cables, one just neatly moves the little colourful pins around.

Following her "score" set up on the matrix patching system, Radigue would then create sounds on her synthesizer, simultaneously recording it on her reel-to-reel tape recorder. This "harvest of the sounds," in the composer's words, would take up most of the first year of the composition process for a piece. At the end of this sound research, Radigue would usually have in hand circa 80 sound segments.

The second and most tedious part of Radigue's electronic composition process was the mixing of these recorded electronic sounds, which could take months and even years to complete. First, Radigue would organize the tape segments following what she needed for the narrative of the piece [this sound for the introduction, this one for the middle part, etc.] She would also sometimes undergo pre-mixes of 3 or 4 tape segments. Then, when ready, she would embark in what one of the most demanding parts of her composition, that being the mixing process. In the composer's words, if the piece last 80 minutes and at the 75th minute she made a mistake, she had to start the whole ordeal again from the beginning: "It was really an enormous amount of work!"[43]

With this small *aparte* in mind, it is now perhaps easier to understand similarity of approaches between Blondy and the organ, and Radigue and her ARP 2500. Indeed, coming back to Blondy's score for the Rieger, one can trace many parallels with Radigue's preparation of the ARP 2500. Where Radigue would write down the combinations between inputs and outputs, Blondy takes note of the different pitch and register combinations required for the performance of the piece. Yet, unlike Radigue, Blondy could not translate this score directly to the instrument before the performance. In

[43] "Eliane Radigue," IMA Fiction Portrait #04, video, 14:43, 2006, https://www.youtube.com/watch?v=lcy5fLcAsQQ&t=3s.

other words, unlike the ARP 2500, while some registers can be prepared in advance, Blondy could not preset all the stops of the Rieger organ and leave it that way for the whole performance of *Occam XXV*. Moreover, and without taking anything away from Radigue's tremendous work with her ARP 2500, Blondy, as the composer herself has underlined, must play a piece very much like the ones for synthesizer, but live.

This means that, concentration-wise, Blondy's approach to *Occam XXV* is akin to what Radigue experienced during the mixing process of her ARP pieces. As I have had the chance to hear during rehearsals of the organ piece, one little mistake, or one concentration slip from Blondy resulted in a very awkward musical moment where the quiet drone quality of Radigue's music was, very suddenly, interrupted by the most extravagant trumpet-like sound. In Blondy's words, the balance between the concentration needed to follow the plan and activate the required stops, and the focus on listening to the response of the hall to the sounds emitted by the organ—so essential to the hide-and-seek game exposed above—is "extremely difficult.": "Ah it's stressful, really," Blondy shared with me, "It's based on so little, this music. It's disturbing."

In sum, despite a pre-noted plan, both in Radigue's pre-mixing process and in Blondy's live performance, a slip in concentration (and a slip of the finger, in Blondy's case) and the magic of Radigue's piece quickly disappears. Indeed, the relationship between concentration and the success of a performance is not foreign to performers of all kinds of music. Listening to the response of the concert hall or staying focussed on the score comes as natural reflexes even for traditionally trained musicians playing

traditional Western classical music.[44] Yet, as previously outlined throughout this dissertation, the sound material of Radigue's music pushes these performance parameters to their extremes. Since the composer's works are made of resulting pitches—harmonics, Tartini tones, micro vibrations and the like—a wrong note or a note played too loudly literally "pops" Radigue's fragile sound bubble. The piece somehow drops back to silence, and the microbeats must be recreated from scratch.

2.3 Listening, Concentration, and Gesture

The concentration challenge posed by *Occam XXV* led Blondy to use a timer. Blondy needed this tool to pace himself during the performance of the piece. Indeed if, for example, he spent too much time on the beginning, it was most likely that he would run out of fuel, so to speak, and make a mistake towards the end. This means that, compared to the Bozzini experience analyzed in the previous chapter of this dissertation, Blondy is always aware of the evolution and duration of the piece. The Bozzinis, on their part, while often unable to say exactly how long the piece lasted, are still aware of its duration, particularly due to the feeling of tiredness in their muscles, as is especially the case with the violist and the cellist.

Blondy's performance is not physically demanding, at least not in the same way that cellist Isabelle Bozzini has shared, as when she discussed her shoulder needing a quick rest after bowing sustained sounds for three quarters of an hour. Indeed, while Blondy does touch the organ, he uses cards to hold the notes down.

[44] A quick reminder of violist Elodie Gaudet's comment, cited earlier in this chapter: "Yes, and I remember, she [Radigue] told us to adapt to the environment, to pay attention to the resonance—well, one could say that everyone does it."

While I stood directly next to Blondy, taking pictures, or videotaping his rehearsals, the organist's performance process was quite transparent to me. He would first listen, often eyes closed. Then, he would get his finger ready to change a stop on the organ, wait and listen for another while and, when he heard the timing was right, he would either add a register to an already pressed note on the keyboard, or sometimes change that pitch, and hold it down by means of the cards shown in the above image. In sum, Blondy, throughout *Occam XXV*, does not so much play on the keyboard as he listens for the correct moment to change the stop for a given note, held as it is by a card stuck between the keyboard's keys [Figure 8].

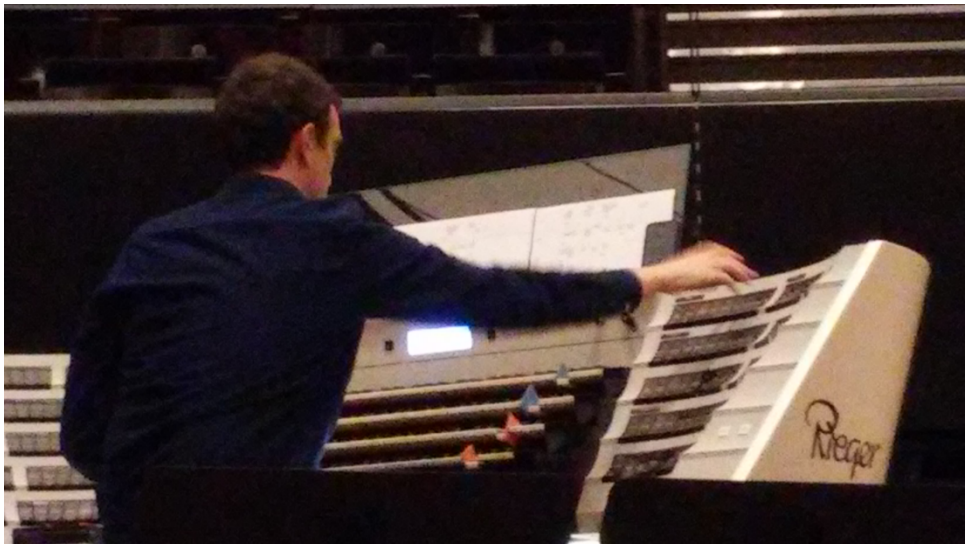


Figure 8. Photo of Frédéric Blondy at the Rieger organ during a rehearsal of *Occam XXV*. One can see the card he used to keep the notes sounding. Photo taken by the author.

However, when I stood at the back of the hall, the whole performance was far more esoteric. Since Blondy does not actually *play* on the keyboard—as it would be the case in more traditional organ repertoire—given the size of the Grande Salle, one was at a loss as to understand what was going on. The suspended tension of Blondy's finger,

ready to press the stop, was impossible to grasp. During *Nuit Blanche*, one sees a man, back turned to the public, sitting in the middle of the stage in a hollow of light, at what seemed more akin to a spaceship than an organ. The link between gesture and sound was completely lost [Figure 9].

Figure 9. Picture of Frédéric Blondy at the Rieger organ during the Nuit Blanche performance of Radigue's *Occam XXV.* Photo taken by the author.

As I have previously explained, in Radigue's music after a certain time sounds seem to emanate from different parts of the hall. Thus, after a few moments of attention to this strange instrument on stage, as well as to some of the movements in the great *boîtes d'expression*, one quickly stops thinking about the presence of Blondy on stage. In a way, from the audience's perspective, Blondy quickly stops acting as a performer. Rather, and as it was very much the case during the *Nuit Blanche* concert, Blondy's role seemed to work more as an example for the audience of what one should be doing, and how one should listen.

3. CONCLUSION: *NUIT BLANCHE* AND BEYOND

Nuit Blanche was a revealing evening, both for me as a Radigue scholar, for the new audience members, as well as for Frédéric Blondy and other fans of Radigue's music. The only person who did not seem surprised by the turnout of the events was Radigue who, in full knowledge of the nature of the evening, decided to stay home and take care of her health.

Indeed, contrary to me, Radigue knew that most of the people that formed a tremendous line stretching out of the Philharmonie were there more to see the Grande Salle than anything else. She admitted laughing when I sent her a—very candid—email with a picture of the audience, congratulating her on the amazing audience she had drawn with her organ piece [Figures 10 and 11]. Coming from Montreal, I did not quite grasp the nature of the Parisian *Nuit Blanche*.[45]

[45] "Dear Emanuelle, Thank you for all your kind messages and photos. I hope you were able to make your way through the crowd, which I think was there mainly to see the hall in passing and that the listening conditions were not too disturbed by the constant coming and going… I believe that it was above all a great opportunity for Frederic to be able to play with this superb organ of which he confided some secrets to me and it is good that you were able to attend the rehearsals in better conditions. Thank you again dear Emmanuelle, Je t'embrasse." Eliane Radigue, email to the author, October 6, 2019.

Figure 10. Photo taken by the author of the lineup to the Philharmonie for the *Nuit Blanche* concert of Éliane Radigue's *Occam XXV*.

Figure 11. Photo taken by the author of the concert hall while people seated themselves for the concert. As one can see, the ground floor was vacant of seats.

At the beginning of the performance, everything seemed in order. People slowly filled the great hall, chatting with seated neighbours, taking pictures of the hall and pushing through to free spots. Others decided to make it to the ground floor, where seats were taken away so that people could sit freely on the ground. Blondy eventually made his entrance on stage, people applauded, and he bowed.

Then he started playing. But, instead of having pure silence at the beginning of the piece, about half the audience did not quite understand that the piece had started. Still waiting to hear something, people continued their discussions with whomever they had come to the event. After a few minutes, some decided to stand up and leave. After all, there were many things to be seen during *Nuit Blanche*: why wait for this organist to start his piece?

Yet, Radigue's music kept evolving, somehow taking form in the undergrowth of people's chatter and comings and goings. Blondy, in a "tremendous concentration effort," as he told me after the performance, had managed to bring the piece to life. With the augmentation of the piece's volume, the audience's murmur diminished. New people still peeked in the hall and, not quite understanding what was going on, quickly left.

While obviously most audience members were unsure of how the piece was evolving, one aspect of the evening held true for everyone, even for audience members that were very well versed in Radigue's music: from the distance granted by the hall, it was very difficult to perceive Blondy as an active performer. Rather, sounds seemed to fill the hall, almost on their own accord.

This breaking down of the boundaries between performer and audience member, between musician and listener eventually led one, very inspired audience member, to take part in the mass of sound. Standing somewhere on the ground floor, this person decided to join in the concert head-on and sang along with the harmonics that emanated from the organ. At that point, the audience was, in general, quiet enough for everyone to hear this spontaneous artistic participation clearly and without doubt. While some stirred

uncomfortably in their seats, not knowing how to react, others did not seem to notice, probably thinking that this was the plan all along.

After the performance, I waited with other friends of Frédéric Blondy outside the hall. Most people were talking about the "surprise singer," and about the poor listening conditions of the evening. Blondy eventually emerged, smiling, looking as if he had come to the finish line of some sports event. "At least she sang the correct harmonics!" someone close to me said.

The singing anecdote of the *Nuit Blanche* may seem trivial, but it nonetheless points to very important parameters of Radigue's music, both in the performance practises it creates, as well as on its position within Nuit Blanche's cultural field.

First, it speaks to the liminal nature of the performers of her music. Given the sound material required by all her works, Radigue, as well as Quatuor Bozzini, ONCEIM musicians and Frédéric Blondy constantly oscillate between action on the instrument, and an active and intense listening to the sounds that emerge from the brushing of the frequencies. Since most of the weight is given to the latter aspect of performance (active listening), for the audience member the performers of Radigue's music often seem to be doing almost nothing. As seen, given the particularly large size of the hall, as well as the nature of the Rieger instrument, this holds particularly true for the *Occam XXV* performance. On perhaps a lesser scale, the same effect is created during a performance of ONCEIM's *Occam Océan.*

Moreover, the performance of Radigue's works at the Philharmonie during *Nuit Blanche* points to a new general—if not popular—inclusion of Radigue's music. Similarly, performers of Radigue's music are now very conscious of the entry card that is

granted to them through the composer's name. As both Quatuor Bozzini and ONCEIM members have told me, playing Eliane Radigue often results in getting gigs in experimental or avant-garde music festivals.[46]

While this generalized drastic and recent change in the cultural field regarding Radigue's music will be the subject of the next and last chapter of this dissertation, a more particular reaction to Radigue's sound during *Nuit Blanche* is worth noting. For the last eight years, I have attended numerous Radigue concerts. The performance of *Occam XXV* at the Philharmonie is the first time that I observed such spontaneous reactions to the composer's music. The reasons may seem obvious: *Nuit Blanche* is Radigue's first contact—to my knowledge—with a more popular audience. Most of the audience consisted of people who did not know Éliane Radigue's music, and their general expectations of what a classical concert should be, or of how a performer should act was not met. Thus, not knowing what was happening, many left after a few minutes, and someone decided to sing along.

Yet, this contact and inclusion of Radigue's music with a new audience triggered the same reactions that took place back at the beginning of Radigue's career in New York's downtown New Music scene. Back then, Radigue's music was quite polarizing, leading many audience members out of the room, and leaving the rest in deep concentration, eyes closed, listening. Over the last eight years of my contact with Radigue's public, I observed a connoisseur public who, in general, pays a certain respect

[46] For example, *Occam Océan* was played, amongst other performances, at the Fondation Cartier (Paris), the Crak Festival (Paris), the Théâtre National d'Orléans, the Edition Festival (Stockholm) and at the Sacrum Profanum festival (Cracovie). Quatuor Bozzini performed their Radigue piece, *Occam Delta XV* at Suoni Per Il Popolo (Montreal), at hcmf (Huddersfield), SLOW(36H) (Bruges), Riverrun (Albi), at the Hors les Murs festival in Montreuil, and at MaerzMusik (Berlin and Montreal).

to Radigue's music. Despite not necessarily liking every part of her music, audience members observed a certain decorum, and stayed quiet until the end of the piece.

Bursting out of this niche public into the popular *Nuit Blanche*, these attitudes are not expected. Yet, perhaps surprisingly, this answers one of Radigue's wishes. She would become very suspicious, she once told me, if one day everyone liked her music. Out of the underground in which it had slowly installed itself over the last half of the past century, Radigue's crossover to the realm of the popular—be it for one sleepless night—continued to shake expectations about music, performance, and listening.

CONCLUSION. From the Underground to the Upperground: Eliane Radigue, IRCAM, and the Panthéon de Paris[1]

Over the course of this research project, I spent roughly half a year in Paris. While I was there, my main research goal was to get to know musicians and other actors of the Parisian cultural scene who had collaborated with Radigue, in one way or the other. Chapters four and five testify to my activity in the *Ville Lumière*.

Yet, another, more overarching goal, of my research trip was to try to get a feel for the current state of the Parisian cultural field as regards to Radigue's more open-ended, non-scored based, compositions. I wondered who, in 2019, attended experimental music concerts such as Radigue's; where were these concerts were produced, and how were they promoted? In other words, through my interviews with musicians of the scene or while attending different experimental music concerts, I pondered experimental music's degrees of attachment to different institutions, types of audiences and spaces of performance.

Perhaps ironically, I chose IRCAM as my home base for these enquiries. Indeed, I was quite surprised to learn, while I was preparing for my trip to France, that within IRCAM's APM team [Analysis of Musical Practice], researchers had extensively collaborated with ONCEIM members on the study of free improvised music.[2] At the risk of sounding dated, I admit the learned image of IRCAM as a hard-core, computer heavy centre for research on exclusively score-based music still had quite a grip on my imagination. In other words, when thinking about IRCAM, I mostly thought of Pierre

[1] This concluding chapter proposes to use the term upperground to designate how Radique's works and practices are now moving towards something more established, in the sense that the composer enjoys a certain general (historical, academic, institutional) notoriety than when she was part of the underground.
[2] See the MICA project website, for example. "Mica," IRCAM, accessed May 9, 2022, https://www.ircam.fr/projects/pages/mica.

Boulez, as well as the hierarchies and modes of oppositions around which the institution was built, at least as portrayed by scholar Georgina Born.[3] How did an interest in free-improvisation and experimental music get in there?

I was even more surprised at how easily my application to work on Éliane Radigue within the APM team was accepted and valued. During my stay, amongst other tasks, the research team and I co-designed the study on Quatuor Bozzini and Radigue mentioned in the fourth chapter of this dissertation. Moreover, I was pressed to write Radigue's "Oeuvre" and biography for IRCAM'S b.r.a.h.m.s. website (shortly before my arrival and to everyone's dismay, IRCAM members had realized that her name could not be found in the composer database). I also learned, during one of my monthly visits to Radigue at her house, that a large-scale tribute event was being prepared around her life's work at IRCAM and Centre Pompidou. As Radigue told me, the IRCAM director himself had taken her around Place Stravinsky, rolling her in her wheelchair to her cab "like royalty!"[4] While I was in Paris, Radigue's music—and Radigue herself—was in fashion.

With regards to the earlier, or "pre-collaboration" years of Radigue's career as a composer, sketched out in the first chapters of my dissertation, IRCAM'S valorization of her music is a major event. If this dissertation holds that, concerning Radigue's career, a given set of social and institutional "rules," in the Foucauldian sense, dictate how certain truth claims overpower others, my extended stay in Paris made me realize how much weight IRCAM had in drawing the contours of what was possible to say and think in the

[3] Georgina Born, *Rationalizing Culture*.
[4] "Le Monde d'Éliane Radigue" was the title of the 3-day tribute event on Radigue's career. It was part of IRCAM'S 2020 ManiFeste concert series. See "Eliane Radigue," IRCAM, accessed May 9, 2022, https://manifeste2020.ircam.fr/en/person/eliane-radigue/.

Parisian music scene.[5] For the longest time, the importance of institutions like IRCAM, and its role in shaping what is worthy of recognition, made it quite difficult for experimental music composers and musicians to have access to grants and, consequently, to certain concert spaces.

Obviously, in light of the Radigue fashion at IRCAM, many things have changed. And yet, whiffs of the "older" IRCAM still hold true, at least in the collective imagination of what IRCAM represents for actors of the experimental music scene. The following story serves as a metaphor for these tensions, and as a witness, at least through what I have observed, of some of the ways in which the field has—and has not—changed.

At the beginning of my internship at IRCAM, I was struggling to find an adequate studio within the institution to host Quatuor Bozzini, who had agreed to fly to Paris last-minute to participate in our exploratory study on Radigue's music (see chapter four). My initial idea was to find a very resonant studio where the quartet could perform Radigue's piece in the best acoustic conditions. In exchange for their participation in my study, QB members would thus also have a nice recording of their *Occam*. As I quickly realized, with one exception (which was not available at the time), most of IRCAM'S studios are extremely dry sounding; not the exact acoustic one is looking for when performing Radigue.

A contact that I met through Frédéric Blondy, director of the ONCEIM ensemble (see 5th chapter of this dissertation), advised me to propose my project to the Panthéon de

[5] See Born, *Rationalizing Culture*. Fédéric Blondy also shared with me how, in his earlier career, experimental music performers like him "suffered" from the rigidity and power of the institution. Blondy, in conversation with author, Fall 2019.

Paris. I took note of the address which, to my astonishment, led to the real Panthéon, and not to an underground stunt version of the lavish hall of fame [Figure 1].

Figure 1. Panthéon de Paris. In effigy "Aux grands hommes la patrie reconnaissante," (To the great men the grateful motherland). Photo taken by the author on November 9, 2021.

During my first meeting with the head of cultural affairs, I was told that the Panthéon organization wished to give the monument a new lustre by "bringing it to life." While the Panthéon represents the paramount of ceremonial respect to "great (dead) men"

of the nation, the cultural administration worked to bring a new facet to the hall of fame, and make it enter modern "life" through culture.[6] According to this—somewhat paradoxical—new cultural politic, an international collaboration with the Quatuor Bozzini on music by a French woman composer was just the thing, and the doors of the Panthéon opened to our project.[7]

In November 2021, Quatuor Bozzini thus performed *Occam Delta XV* at the Panthéon de Paris.[8] Together with Radigue, we concocted a guest list including colleagues from IRCAM, Radigue's lifetime friend composer Tom Johnson (quoted extensively in this dissertation), a few musicians who have collaborated with Radigue on her *Occam* project, as well as Radigue's family members [Figure 2 and 3]. When I went to greet Radigue at her taxi to accompany her up the monument's many stairs, she told me, winking, how happy she was to "enter the Pantheon alive."

[6] Amongst other events that have been presented at the Panthéon since the implementation of this new cultural politics is the OVNI (Orchestre des Versions Novatrices de l'Impossible) concert. The concert is the conclusion of a year-long workshop and collaboration between amateur and professional improvisors from the Paris region. Its members comprise, amongst other members, multigenerational musicians from the migrant community crowded in the outskirts of Paris. See the OVNI website, accessed June 9, 2022, https://orchestre-ovni.com/qui-sommes-nous/.

[7] The first iteration of the Radigue-Bozzini concert at the Panthéon was initially supposed to happen on March 13, 14 and 15th 2020. It was postponed to November 2021 due to the Covid lockdowns.

[8] Recordings from this concert will form Quatuor Bozzini's album on Éliane Radigue, and a film by Gille Paté was created.

Figure 2. Éliane Radigue talking to composer Tom Johnson at the Panthéon de Paris on November 9, 2021. Photo taken by Quatuor Bozzini.

Figure 3. Quatuor Bozzini with Éliane Radigue after one of the two Panthéon concerts, on November 9, 2021. Photo taken by the author.

This event represented, human wise and for everyone in the hall, something far more important than this current dissertation. For one, the concert was one of those events that happened in between Covid lockdowns in Paris. What is more, Radigue, now 90 years old, very seldom attends public events of the sort. In a word, the evening was very high in emotion.

Now that I am writing this conclusion, many months have passed since the Panthéon adventure. It is thus possible for me to take some distance, and think about the evening in terms of the research axis that I have developed throughout this dissertation project. Both IRCAM and the Panthéon represent almost iconic symbols of Paris's landscape. The first is renowned for its promotion of a scientific approach to music

composition, and the other for its austere monumentality, none of which have much to do with Radigue's music, or compositional methods. Thus, the intersections at which Radigue met—and was celebrated—by these institutions speaks to the many changes that took place within them in particular, as well as to the new cultural value that is ascribed to Radigue's music.

First, concerning the composer's work, while it is not possible for me to expose exactly the reasons leading to this change in recognition by Parisian institutions or, to put it in more theoretical terms, to draw the relationship between the sets of "rules" that enabled Radigue's music to finally emerge as worthy of attention in the French cultural scene, I can nonetheless point to a few propositions. Most important amongst these is perhaps the composer's latest project, *Occam Océan*, described in Chapters Four and Five of this dissertation.

As previously stated, through her *Occam* project, Radigue comes back to her interest in combinatory pieces, first developed with magnetic tape loops. In these early pieces for tape recorder as well as in her *Occam Océan* project, Radigue has created a monumental and infinite project. Indeed, solos of the *Occam* series can be combined almost endlessly to produce duos, trios, etc.

Radigue does not actually teach every single piece that is created through the combinations inherent to her project. Rather, since the essence of her collaboration with musicians is the transmission of her musical sensitivity, once Radigue has taught a solo *Occam* piece to a musician, the essential components of Radigue's music are acquired by that musician. Larger ensemble pieces stemming from different solos thus come almost naturally to performer. Indeed, when they create a new combination in the *Occam* series,

musicians come to meet with Radigue for a "check-up" (perhaps to make sure the new piece that is made out of the combination of previous pieces still is in tune with her aesthetic) and for approval, as well for the pleasure of seeing her, more than for a new learning process.[9]

In this way, the composer's music can—and does—take on a life beyond herself. Thus, in addition to the important fact that musicians now pay interest to Radigue's music, her music in itself creates an impressive amount of movement. The number of concerts and events that are organized around Radigue's oeuvre somehow go beyond the physical capacities of a 90-year-old composer. In this whirlpool of music creation, performers—which Radigue calls her "chevaliers d'*Occam*—promote Radigue's aesthetic worldwide to the most renowned music institutions.

Thus, from a critical theory perspective, one could argue that the role of Radigue's "Chevaliers d'*Occam*" in promoting the composer's work is akin to the role that Pierre Bourdieu attributes to avant-garde art critics. Indeed, they serve as "discoverers […] and enter into exchanges of attestation and charisma which often makes them the spokespeople, sometimes the impresarios, of artists and their art."[10]

In general, amongst other theoretical critics, I have found Pierre Bourdieu helpful in analyzing—or at least hypothesizing—on the reasons leading to Radigue's acceptance and non-acceptance within the different music scene within her music has evolved since the beginning of her career. As concerns the composer's (very) recent legitimization (to

[9] The way Radigue speaks of the rehearsals that take place for the creation of a new piece through the combination of, for example, two solo pieces is akin to, in the composer's words, "a gift." Although I have not documented such pieces, Radigue's reactions indeed suggests that there are no important issues during rehearsals; that the performers, whom Radigue calls her "Chevaliers d'*Occam*" know how to "play Radigue." Radigue, in conversation with the author, Fall 2019.
[10] Pierre Bourdieu, *The Rules of Art*, 147.

put it in Bourdieu's vocabulary) by IRCAM and the Panthéon and as I have previously suggested, today's performers are not foreign to Radigue's celebration within these traditional or traditionally modernist institutions. While it would be too simplistic to affirm that, over the last 20 years, Radigue's "Chevaliers d'*Occam*" have been the sole responsible for Radigue's legitimization by institutions and schools, one could hypothesize that their role and actions (concerts and interviews) as "discoverers" and "promoters" of Radigue's music somewhat paved the way for its consecration by institutions like the Panthéon. Such institutions, according to Bourdieu, traditionally "reproduce [in their function and occupation] the distinction between consecrated and illegitimate works and, by the same token, between the legitimate and the illegitimate ways of approaching legitimate works."[11] Radigue's music, after over 20 years of promotion by its performers-impresario, seemed better fit to enter, especially in the case of the Panthéon, the combination of "tradition and tempered innovation."[12]

Second, if, as discussed earlier, institutions like the Philharmonie (Chapter Five), IRCAM and the Panthéon have proven to be more in tune with contemporary concerns about inclusivity, performance practises and compositional methods, the fact remains that, often, the prestige of the "old" IRCAM, the "old" Panthéon and the Philharmonie remains in peoples' conceptions about the institutions. Indeed, I have experienced the effect of the "old" IRCAM during my stay, albeit in a very positive way: getting interviews with experimental musicians, convincing Quatuor Bozzini to interrupt a tour to participate in a study, and booking the Panthéon were concluded in a breezy fashion that, had I not had the IRCAM "stamp", would have perhaps been more laborious. In

[11] Bourdieu, *The Rules of Art*, 147
[12] Bourdieu, *The Rules of Art*, 147.

general, people shared their happy surprise to learn that IRCAM (finally) had interest in alternative modes of music creation, and seemed pretty keen at visiting the famous institution. Perhaps they, like me, thought of Georgina Born's Boulez when passing through Place Stravinsky. Instead, I was the one opening the door to them.

Thus, as concerns IRCAM, in a paradoxical way, the institution's more or less bad reputation in the view of experimental music performers led these very musicians to readily accept my invitation to participate in my dissertation project. The image of the "old" IRCAM, with its rigid ideology concerning what is worthy of contemporary music, enabled the research team and me to have easy access to experimental music performers.

In brief, over the years that I spent on this dissertation project, I have been continuously impressed by the malleability of the cultural field surrounding Radigue's practices. This applied to both the more recent ethnographic chapters, as well as to the historical and archival research undergone in the first section of the project. I have had the chance to observe closely how Parisian institutions now valorize Radigue's music; how both experimental music performers and institutions like IRCAM seem mutually and increasingly curious in each other's practices; and how Radigue's music now works as an entry card to different festivals or music events for both performers and researchers.[13] Similarly, the historical chapters of this dissertation point to different zones of tension

[13] Here, I must admit that I have found Bourdieu's theory on the genesis and structure of the artistic field somewhat less helpful. To my knowledge, he seems to present the roles and functions of institutions, as well as the logic of the field, as something quite rigid. In this sense, while it is not impossible to speak of ideological and esthetic changes in institutions in Bourdieuan terms, I have found that this liminal zone in which IRCAM, the Panthéon and even the Philharmonie now find themselves (somewhat shared between their "old" identities and reputations, and a very recent gesture towards issues of inclusivity, and the legitimization thereof) difficult to discuss solely with Bourdieu in mind. Again, and as I have argued in the introduction of this dissertation, during my research on Radigue, ethnography has worked as a very sensitive tool—almost like a detector—when it came to sensing the precariousness of ideologies within both institutions and actors of a given scene.

between acceptance and marginalization of Radigue's work. As shown, in some spheres Radigue's work was valorized, and in others completely dismissed, or not even considered worthy of the music categorization.

In a way, my dissertation project, while focussing on Radigue's music and career, is not always precisely *about* Radigue. I must admit a heroic portrait of Radigue has been more than tempting, especially granted how close and fond I have become of her—as a composer and as a person—over the course of this project. And yet I tried to resist such an orientation. A "great composer" portrait, while offering some advantages, would have participated in flattening out the strategies that Radigue put forth to navigate within the cultural world in which her music has evolved for the last 60 years.

Thus, in this dissertation one of my aims was to sketch out the flexible, surprising, and ever-changing parameters of the cultural fields *surrounding* Radigue. From her assistantship with Pierre Henry, to her liminal role as a "domestic" composer, and to her current collaborations with today's experimental music performers and cultural institutions, I have tried to show some of the social, institutional and ideological mechanisms that have simultaneously silenced and given voice to Radigue as a composer. My aim, through a perspective informed by Radigue's presence in these different fields, was to put forth the unstable quality inherent to the modes of valorizations within avant-garde and experimental music practises.

And yet, while I do not consider that a "great composer" portrait of Radigue does justice to the complexity of the power structures that shaped the fields in which her music evolved, I do hold Radigue as an active actor in those fields.[14] To put it more

[14] I have found that speaking of Radigue in an empowering way barely possible within the theoretical propositions of Pierre Bourdieu. This difficulty is, still according to my knowledge, in part due to the

straightforwardly, Radigue is, of course, not solely responsible for IRCAM'S new interest in experimental music, for example. Nonetheless, according to my observations, I believe that the composer participated in those (sometimes slow and rusty) changes. While it is a little difficult to grasp the level at which her music impacted scenes like that of 1970s downtown New York, the composer's influence on today's performers is obvious. As demonstrated earlier in chapters four and five, Radigue's relationship with time and sound, which she developed out of necessity with electronic instruments, now crosses over and reveals new performance practises to contemporary musicians. Radigue, along with today's performers of her music, participates in shaping the musical worlds in which her music is heard. One piece at a time and for over half a century, Radigue and her extremely slow, seemingly unbudging music, has participated in weathering the barriers that silenced her art, thus creating new paths for broader ways of thinking, and listening.

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rigidity of the notion of institutions in general, as well as the top-down power structure inherent to the logic of the cultural field as proposed by Bourdieu. Moreover, and this time like other discussions about the avant-garde analyzed in this dissertation, Bourdieu speaks the cultural field in which avant-garde actors operate as marked by a logic of opposition. For example, as I have already cited in chapter three, when speaking about the correlation between artistic age and the lifestyle, Bourdieu states that avant-garde artists are considered young not only because of their artistic age, but also by their lifestyle, meaning their (provisional) refusal of money and of "worldly importances by which ageing occurs." Bourdieu, *The Rules of Art*, 150. Within this logic of opposition between consecration, economic profits, and artistic generation, it becomes difficult to speak about a woman like Radigue, precisely because her identity as a (bourgeois) woman is in part defined by the same opposition that the avant-garde hails as its own. Bourdieu even comments on the matter, stating that, bourgeois women, for example, whose world is: "designated by the opposition between work and leisure, money and art […] and with the domestic cult of moral and aesthetic refinement […] occupy in the field of domestic power a position homologous to that held by writers and artists, dominated among the dominants, at the heart of the field of power." *The Rules of Art*, 250.

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