

**Deep Listening: The Strategic Practice of
Female Experimental Composers
post 1945**

by

Louise Catherine Antonia Marshall

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Abstract

New developments in music technology, alongside a more porous understanding of the nature of sound and its performance, have opened experimental and contemporary music to many new expressions since 1945. It might therefore be expected that the revolutionary compositional ingenuity demonstrated by many of female composers shaping this new transmission of music-making would by now be carefully documented in the historiography. Yet this has not been the case, and their absence is symptomatic of a still active antipathy to women entering and participating in professional and artistic arenas that remain structured in gender terms.

Taking my title from Pauline Oliveros's practice of Deep Listening, my research analyses the compositional strategies of an indicative group of five female composers, with the intention of redressing this knowledge gap. I do this from a practice base, in which interviews with Éliane Radigue, Oliveros, Annea Lockwood, Joan La Barbara and Ellen Fullman are analysed through a methodology built from the intersections between psychoanalysis, oral history, and sound studies. From this, I propose the concept of the sonic artefact that results from the methodologically-focused encounter between researcher and narrator. Analysis of the communicative space within which the sonic artefact operates offers, I argue, a new methodology for gleaning ontological meaning from the sonic utterance of speech. This is extended to researchers as a method in which to theorise and to achieve a 'deeper listening' that attends to the historical depth of who is making sound and how they might be better heard. The audio interviews made during my research and additional documents share a focus with the Her Noise Archive at the University of the Arts London's Special Archives and will be lodged there.

(282 words)

Declaration

I hereby declare that, except where specific reference is made to the work of others, the contents of this thesis are original and have not been submitted in whole or in part for consideration for any other degree or qualification in this, or any other university. This thesis is the result of my own work. Volume I of this thesis contains 81,134 words, excluding appendix, bibliography, translations and images. Volume II (94,534 words), which constitutes my practice, comprises of interview transcriptions and annotations. A USB stick containing MP3 files of the five interviews is attached to Volume II.

Acknowledgements

Without the generous participation of the artist-composers who so kindly agreed to be interviewed, this research would not have been possible. My deepest thanks go to Ellen Fullman, Joan La Barbara, Annea Lockwood, Éliane Radigue and the late Pauline Oliveros for their time and engagement, reflection and help.

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To the memories of my mother Jean Marshall (1917-2014), of Pauline Oliveros (1932-2016), and of Madame Roger, the Parisian music teacher who had her own strategy of listening deeply.

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Glossary

This short glossary of words or phrases commonly used in this thesis is provided to enable a more mellifluous reading.

Composer-narrators, narrators

To reflect the fact that an interview should strive to replicate a relationship of equality between its protagonists, I use the words “narrator” (Yow 2005: 185) or “composer-narrators” to refer to my interviewees. In this way, I signal *their* agency in terms of *their* narration and narrative structure as a means of honouring each narrator’s active role in my research.

(De-)composition

A compositional process orientated around sonicity, the attack and decay of sound and its structure, rather than the ‘organised’ sound of the traditional musical score.

Deep Listening and deep listening

Deep Listening – as both a trademarked practice and as an acute listening activity – are at the heart of the compositional practice of Pauline Oliveros. The phrase is hers: she used it first during the mid-1980s to refer a “listening in every possible way to every possible thing”. (Oliveros 1995: 19) She used it, too, to refer to a recording session in 1988 that took place in a disused underground cistern in the US,¹ in which the listening was ‘deep’ in two ways: literally, because it took place fourteen feet below ground; and metaphorically, because it called for a focussed listening practice. When speaking of Oliveros and her practice in terms of its organisation, I use her phrase with capital letters. When speaking metaphorically, I use the phrase in lower-case letters. In this way, I hope to avoid confusion.

¹ Oliveros, with fellow musicians Stuart Dempster and Panaiotis, held a recording session of improvised music in 1988 in an underground cistern built originally for the use of the US Navy, in Fort Worden, Port Townsend, Washington. The cistern has a forty-five-second reverb. The resulting album is titled *Deep Listening* (New Albion Records, 1989).

Sonic artefact

In this thesis, I advance my theory of the sonic artefact as a third space that sits between speaker and listener. The artefact is a consequence of a methodically-focussed interviewing practice: identified, listened to and analysed, it is a space in which 'deeper' meaning is situated. The concept is analysed in greater detail in Chapter Five of this thesis.

Research question

What strategies have female composers working within post-1945 experimental music composition have had to adopt to write, perform and distribute their work? Taking the “Deep Listening”¹ in my title from the work of the American composer Pauline Oliveros, my practice-based research listens, in the fullest sense, to the works, working methods and words of a representative selection of female experimental composers working outside the dominant institutional, orchestral and academic hierarchies. In addition to Oliveros, the composers interviewed and studied in this research are Éliane Radigue, Annea Lockwood, Joan La Barbara and Ellen Fullman.

Contributions to knowledge

Oliveros considered Deep Listening² to be a constantly “evolving practice” (Oliveros 2005: xv), informed by her compositional work, her performance and improvisatory practice and her experience as a member of an audience (that is, as a listener within a community of listeners). In my research, deep listening is a metaphor for an expanded theoretical engagement with the interviews, compositional works, methods and conditions of work, with the practical result of the development of a new listening tool that accentuates the sonic nature of exchange and suggests ways in which new knowledge can be articulated from this.

My interviews are the foundation for a practice-based research within the definition provided by Linda Candy:

¹ Oliveros trademarked her term “Deep Listening” and, at points, used the trademark symbol alongside the words. I do not follow her in this for reason of euphony, but I note her strategy of using a legal device to highlight her ownership and control of her intellectual property. I interpret this action as one of ways in which Oliveros recognised value and importance in women’s work.

² Formulated by Oliveros in the mid-1980s, Deep Listening is an acute listening practice that directs attention to sound, the sounding body and its resonances, and the environment of the sound. It constitutes a sensuous, holistic approach to listening. Deep Listening workshops typically combine warm-up physical exercises informed by yoga and t’ai chi before embarking on listening exercises. Oliveros’s self-founded Deep Listening Institute – now renamed the Center for Deep Listening – is at Rensselaer Polytechnic Institute, Troy, New York, and it represents her multi-faceted oeuvre.

Practice-led research is concerned with the nature of practice and leads to new knowledge that has operational significance for that practice. The main focus of the research is to advance knowledge about practice, or to advance knowledge within practice. (Candy 2006:1)

My research theorises the nature of the practice – the interviews themselves – as a route to extracting a deeper meaning from them. The material generated by my five interviews (the transcripts are in Volume II of this thesis) is extensive and therefore it is necessary to use only sections of my composers’ testimony to support my arguments. However, it is hoped that the wealth of material that the composers have generously supplied me with will be used in my future, post-doctoral work. Arising from the combination of the practice and theorisation of the interview encounter, my contributions to knowledge in this research are:

1. An expanded practice of Deep Listening that employs tools drawn from psychoanalytic, feminist, sound arts and oral historical theory to examine the interview as a manufacturer of sonic knowledge. Deep Listening in this iteration is one that is characterised by its flexible framework that encourages the fluidity of ideas and theories.
2. The analytical tool of the sonic artefact. Not to be confused with Pierre Schaeffer’s *objet sonore* or sound object (1966, 2017), the sonic artefact results from an expanded Deep Listening. Working within the intimacy of the third (or transformational) space that exists between the two people in dialogue, the sonic artefact recognises ruptures in a discourse and articulates them within a theoretical framework which extends Hélène Cixous’s (1976) literary-based *écriture féminine* to an *écriture féminine musicale* or an *écriture féminine vocalisant*.
3. The sonic artefact is posited as the sonic equivalence of Laura Mulvey’s (2009 [1975]) psychoanalytically-informed film-based theory of the gaze.
4. The extension of both Cixous’s *écriture féminine* and the arguments made by Joke Dame, Hannah Bosma and Joyce Shintani for an *écriture féminine musicale* (Dame, 1994, as cited by Bosma 2013; Shintani, 2016) into an analysis structured around frame-breaking and (de-)composition. This allows the recognition, articulation and analysis of the separate circumstances of each

- artist's creative initiative and expresses the creation of a form of composition – a (de-)composition – that is fundamentally rooted in sonicity and its attributes.
5. The tension between the *act* of exchange within the interview and the data received. In stressing the sonority (as opposed to the written record) of the interview encounter, the return of the interview (and therefore its ontological knowledge) to the realm of the sonic.
 6. Through an examination, evaluation and analysis of the context and nature of the five composers' working within the field of experimental music and who are here examined as a group for the first time in the public domain, I will recognise the significance of the support, encouragement and affective ties that an activated network, can create. I argue that the activated network reveals itself most fully in surprising circumstances. Using a number of composers allows comparative analysis to be conducted with a view to understanding the routes that women have taken in order to act as composers. It is envisaged that this approach can be extended to other groups of female artists as a way of understanding working practices.
 7. Using the analysis of expanded Deep Listening practices to extend the historiography of contemporary composition, and to make a lasting contribution to the developing field of feminist sound studies which have grown up in the wake of the Her Noise project and of the Sound::Gender::Feminism::Activism initiatives (since 2012) organised by Creative Research in Sound Arts Practice (CRiSAP), the University of the Arts London.

Images

1. Lina Džuverović and Anne Hilde Neset. 2004. Her Noise map
HN/1/1 The Map © University of the Arts London Archives and Special Collections
Centre
2. Lina Džuverović and Anne Hilde Neset. 2005. The Her Noise diagram
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Collections
3. Pauline Oliveros and Alison Knowles. 1974. *Beethoven Was a Lesbian:
Composeress Pauline Oliveros poses in her Garden (Postcard Theater)*
© The artists
4. Pauline Oliveros and Alison Knowles. 1974. *Brahms Was a Two-Penny
Harlot: Alison Knowles at the beach/ Pauline Oliveros with dagger
(Postcard Theater)*
© The artists
5. Pauline Oliveros and Alison Knowles. 1974. *Mozart Was a Black Irish
Washerwoman: Pauline Oliveros at the Zoo (Postcard Theater)*
Photo: Becky Cohen. © The artists

Introduction

The idea seemed simple at first: we would organise a festival that gathered women working in avant-garde music. We didn't want a statement, we just wanted a viable alternative to the male-dominated world of music, and for all we cared, it didn't even have to be exclusively female, we just wanted to redress the balance. What we were after was a resource – something that would remain out in the world after the event was over.

Lina Džuverović and Anne Hilde Neset (2005: 7)

Nobody is going to find you if you don't get yourself out there.

Pauline Oliveros (1976: n. p.)

The Her Noise archive of feminist sound art is held at the Archives and Special Collections at the London College of Communication (LCC) in the University of the Arts London (UAL). It contains printed and recorded matter relating to Her Noise, the project initiated and curated by Anne Hilde Neset and Lina Džuverović in 2001 with the intention of looking at sound art and music through the filter of gender. Between 10 November-18 December 2005, Her Noise manifested its research through a series of commissions, exhibitions and performances held primarily at three London venues: the South London Gallery, Tate Modern and the Goethe-Institut.¹ The two curators, aided by researcher Irene Revell and artist Emma Hedditch, later collated the documentation and donated it to CRiSAP in 2008. It has subsequently been catalogued by Dr Holly Ingleton, with additional work by Professor Cathy Lane at CRiSAP, and extended with additional online material and documentation of subsequent events. It is an active resource for scholars and practitioners. Her Noise came out of a celebration of female-centred creative practice and has developed into an interrogation of gendered sound practices with the aim of establishing a practice of feminist-inflected sound studies. My research shares this focus on women's compositional process, practice and method as a way of validating and adding to a corpus of feminist-centred sound studies.

Her Noise (anag.)

The Her Noise map (2004) (see p. 16) was drawn up on two, stuck-together sheets of used A4 paper on which its creators Neset and Džuverović had written

¹ These events were curated by Džuverović and Neset through Electra Productions, London.

– by hand – the names of approximately one hundred female musicians or composers. Most of these artists are still, or were at the time of its creation, alive and working. A few are historical figures. One, the twelfth-century abbess, composer and Christian mystic Hildegard von Bingen, is known now only by what survives of her work. A few women – for example, Nadia Boulanger (1887-1979) and Elisabeth (“Twelve-tone Lizzy” [sic]) Lutyens (1906-83) – span the middle decades of the twentieth century.² Some of the other names float in the imagined sea of the map as small landmasses, unique to themselves: the African-American blues guitarist Elizabeth Cotten (1893-1987); violinist/video artist Steina Vasulka (b. 1940), who, with her husband, Woody, co-founded The Kitchen experimental arts space in 1971 in New York; and performance artist/musician Laurie Anderson (b. 1947) are mapped as their own islands.

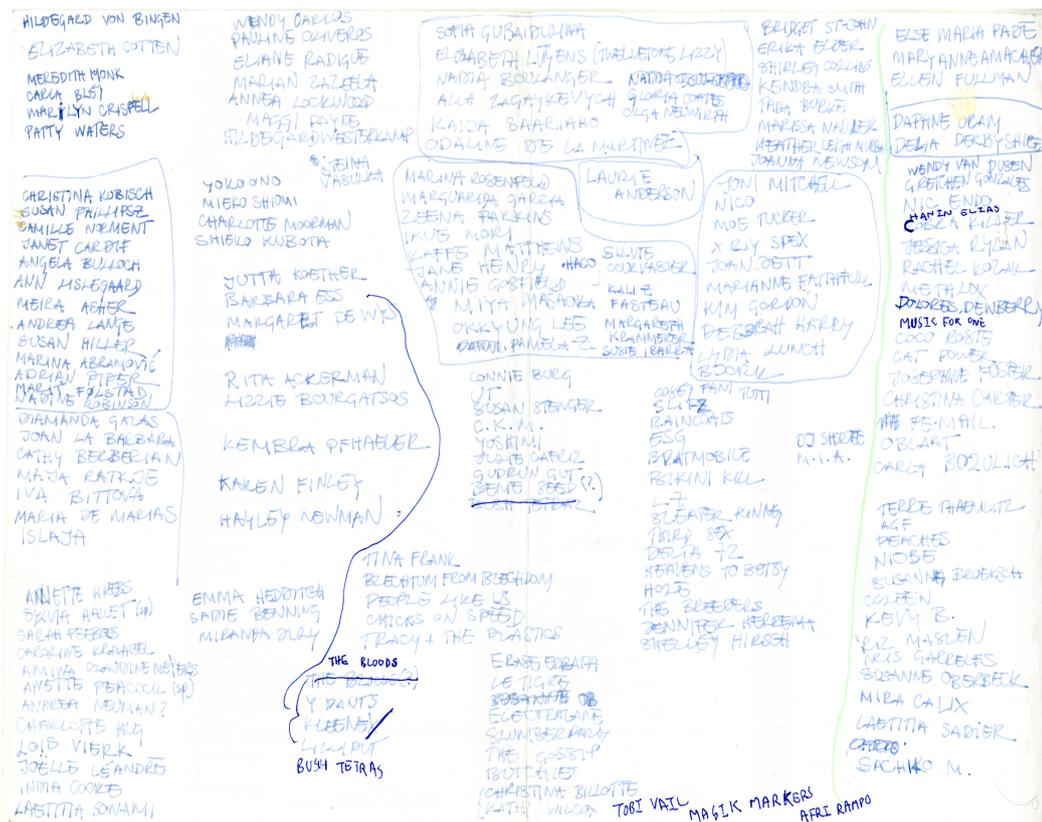


Image 1: Lina Džuverović and Anne Hilde Neset. 2004. The Her Noise map

HN/1/1 The Map © University of the Arts London Archives and Special Collections Centre

² Elisabeth Lutyens is often referred to as “the mother of British serialism” or “Twelve-Tone Lizzie”. For a musicological account of her historical context, see Parsons 2005.

This suggestion of discrete land-masses or, perhaps, hubs, is a useful one: these people are their own islands, their own triangulation points, from which great currents of creativity flow out from and around. However, most of the names collected on the map are those of artists active from the 1960s onwards and they tumble together on the map in small stacks. The map's creators have grouped the names together without any serious methodological taxonomy on their part. This haphazard approach to categorisation is intentional. On the one hand, it reflects the speed and the enthusiasm with which the Her Noise map was begun; on the other hand, its deliberate lack of a central focus is a significant factor. Recalling medieval maps which often radiated out from a cultural, political or religious site of power which thereby conferred a legitimacy of lineage, Neset reflects that the Her Noise map has "no Jerusalem". (Neset 2005: n. p.) This absence of a centre is not to be construed as a lack, Neset suggests. She champions the map's "tangled cartography" as emblematic of the way that female musicians work together, creating and sustaining networks as an antithesis to the "male ego-driven solo ride". "If the feminine domain is heterogeneous, polymorphous, uncentered and rhizomatic, it explains why women thrive in the realm of avant-garde electronic composition," Neset writes. "The Her Noise Map works the same way. It is incomplete, sprawling, non-hierarchical and with a spread energy. It doesn't have a centre, there is no nucleus." (Ibid)

Some groupings make obvious sense: Daphne Oram (1925-2003) and Delia Derbyshire (1937-2001), both pioneers in studio-based music in the 1950s-60s, have a line drawn around their names, boxing off these two members of the BBC Radiophonic Workshop. Else Marie Pade (1924-2016), Maryanne Amacher (1938-2009) – both electronic-based composers – and Ellen Fullman (b. 1957), the latter very much an acoustic composer who comes to music from a sculptural practice, make up another group; Pauline Oliveros (1932-2016), Éliane Radigue (b. 1932), Annea Lockwood (b. 1939), Maggi Payne (b. 1945) and Marian Zazeela (b. 1940) comprise yet another group. The map names women in many transmissions of sonic and musical creation: installation art, art rock, punk rock and the explicitly feminist riot grrl music, popular music, singers and songwriters, classical composers and avant-garde experimentalists. A very few of the names written on the original map – that of the performance artist Marina

Abramović (b. 1946), for example, have little or no connection with sound or music – and this is an important reminder that Her Noise (the title that Neset and Džuverović gave to their nascent project) is not only about sound, but the myriad ways that female artists have approached the question of their sounding and re-sounding in the world. The audacity of these sounding practices is reflected in the fact that “Her Noise” is an anagram of the word ‘heroines’. Indeed, the inclusion of Abramović, an artist whose immaterial (a characteristic that performance work shares with sound) art is increasingly constructed around the twin poles of attentive presence and its absence, signals that Her Noise shares the same focus.

Her Noise and mapping

This map is the foundational document for Her Noise, the exhibition³ that followed, and its archive. The initial map, drawn up with the haste of an inspired enthusiasm, weaves back and forth through history and categories. It is a list of heroines, but read another way, it is also the beginnings of a cartography of artistic networks, of affiliations and influences. An edited and tidied-up version of the map, now referred to here as the Her Noise diagram (Džuverović and Neset 2005), is replicated on the cover of the catalogue (see p. 19) that was produced to accompany and extend the multi-venue series of exhibitions, screenings and performances that Džuverović and Neset curated in the autumn of 2005.

This typeset diagram now comes with lines that snake upwards and downwards between the stacks of names. Everyone named on the map is linked and it is now possible to journey from, for example, von Bingen to the contemporary performance artist/musician Cosey Fanni Tutti, from philosopher Adrian Piper to rock poet Patti Smith, although many interchanges – hubs or junctions – would need to be negotiated to do so. Džuverović writes of the “horizontal histories” of the map/diagram (Džuverović 2012: n. p.), echoing Neset’s (Neset 2005: n. p.)

³ In 2012, Her Noise: Feminisms and the Sonic, a second iteration of the project, took place in the form of a symposium, performances (headlined by Oliveros’s 1970 ensemble work, *To Valerie Solanas and Marilyn Monroe in Recognition of Their Desperation- - -*), and a key note talk by Oliveros. It was held at Tate Modern, London (3-5 May 2012).

invocation of Deleuze and Guattari's (2013) metaphor of rhizomatic spreading to indicate a diffuse, non-hierarchical, non-linear organising principle.

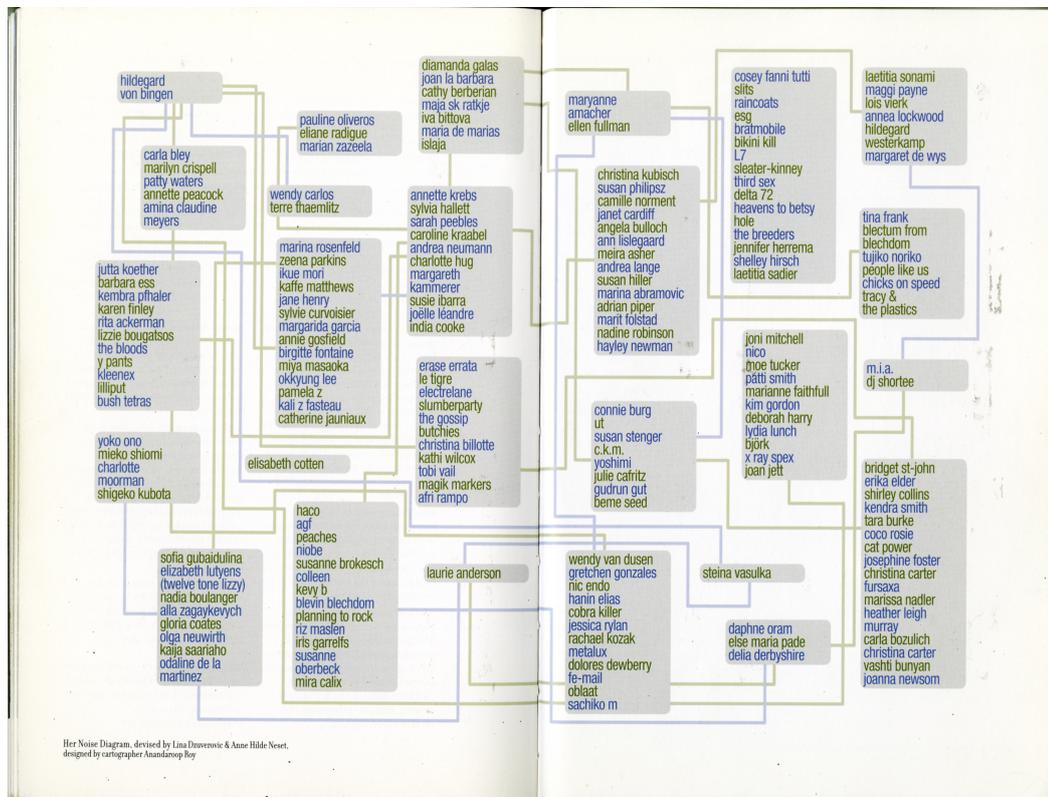


Figure 2: Lina Džuverović and Anne Hilde Neset. 2005. The Her Noise diagram as it appears on the cover of *Her Noise* (2005)

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The very beginnings of the Her Noise project in the London garden of one of its creators is an indication of this rhizomatic strategy and of how much female creativity is generated initially in the domestic space, in lieu of more formalised sites of work. This research hears how Éliane Radigue had tape machines and other electro-acoustic equipment installed in her Paris apartment so that she could combine musical work and motherhood; how Ellen Fullman's invention of her Long String Instrument began with wires and cans she had strung up in her studio/living space; how Pauline Oliveros's early tape works used bathrooms and domestic interiors as both recording chambers and sound sources.⁴

⁴ Mockus hears in Oliveros's *Time Perspectives* (1961) a "sonic portrait of [Oliveros and then-partner Laurel Johnson's] lesbian household in all its homespun quirkiness". (Mockus 2008: 20)

I played a small part in the original Her Noise enterprise by writing a text for its catalogue on the social engagement practice – within, especially, the feminist, queer and anarchist communities – of artist Emma Hedditch.⁵ Hedditch, originally a painter and video maker, at the time was moving towards an objectless art that looked towards the creation of networks and their consequent flows of information as a politically and socially-inspired call to action and creation. I wrote:

Information, personal experience and ideas – the three are inseparable – share a dynamic relationship. Collected information exists to be listened to, thought over, pored over. Its analysis is a social activity. Nor does it exist in its own splendid isolation, for each book, record, file and photograph has its discrete history, just as it has its unpredictable future [...].
(Gray 2005: 49)

The creation and the nature of such networks, valorised by Džuverović and Neset, and promoted by Hedditch, are an important instigator in this research, and my decision to place documents and recordings from this research in the Her Noise Archive is a reflection of this. Taking five female composers (all mapped within the Her Noise world) as my focus, I will uncover and stress the primary importance of the support, encouragement and affective ties that a positive network, so activated, is able to create.

Feminist-inflected networks

These affinities are especially important as a feminist strategy providing support outside the more established and male-centred networks. I will argue that the activated network reveals itself most fully in surprising circumstances. One way is that men can work in a feminist manner, sharing expertise in a non-hierarchical way that leads to the creation of all manner of new work. We can compare the supportive activities of composer Phill Niblock and artist/sound

⁵ Louise Gray is the name under which my journalism is published. We are the same person.

engineer Bob Bielecki⁶ (both of whom have been important to all five composers in this research) with Oliveros's experiences of unconsciously exclusionary practices at the San Francisco Tape Center.

Activated networks

For me, the prime example of such an activated network has been the outpouring of tributes, love, and connectivity on social media that followed the death of Oliveros in November 2016. One might say that this was an impromptu realisation of one aspect of Oliveros's Deep Listening, that is, a radical and profound human connectivity that is expressed in the creation of, participation in, and listening to, sound, composed or spontaneous. Oliveros extended the importance of connectivity in a wide range of activities, and she spent much of her career consciously and deliberately networking and connecting people. She did this on multiple platforms: as a friend, always interested and encouraging (writing postcards and letters); as an administrator and advisor (for grant-giving bodies); as an enthusiastic and active collaborator with other musicians, choreographers, technologists and students; and in many forms of digital interfaces, from her MIDI-connected Expanded Instruments Series instrument-interface research to concerts held (with avatars) on the digital Second Life platform. That so many people – musicians, artists, former students, and many others – came together to share information and express condolences on Facebook pages connected to Oliveros following her death points to the impact of her networking activities; and these posthumous Facebook networking activities could be regarded as an active demonstration of Oliveros's legacy of connectedness.

Participating in networks

Such networks also imply the existence of social and affective ties which connect the people within them. This means that, I, too, become, through this practice-based research, conducted through the method of oral history, part of the greater network of the many of the people that I will be writing about. In

⁶ Bob Bielecki is an engineer, producer and academic. He is currently a visiting associate professor of music on the science, technology and music programme at Bard College, New York State.

subsequent chapters, I shall detail and reflect upon some of these instances. Friendships, of varying depths, have been formed and maintained as a curiosity about the other flows in two directions. The interview sets up a relationship, one that works best when what the oral historian Alessandro Portelli (1991: 31) describes as a “mutual sighting” occurs. In all my research interviews, self-disclosure – of my own network or my background, for example – has played its part with the result that our encounter has been eased in some way. The dynamics and forces operating within the oral history interview are, as historian Mary Kay Quinlan (2011: 26) notes, quite different from those that affect the journalistic interview: the presence of the researcher/interviewer, for example, is acknowledged and accounted for. For Sherna Berger Gluck (2002: 5), all oral history with women is explicitly feminist because it validates female experience and results in the creation of a new, female-centred knowledge. This is especially important as a way of redressing dominant historical discourses, including that of the history and historiography of experimental music, where, because of its reliance on new technologies, women – already discriminated against – have been occluded because of a generalised tendency to gender technology and tools usage as a male preserve. (McCartney and Waterman 2006; Rodgers 2015; Morgan 2017b) We shall see that Éliane Radigue practises her own quiet subversion of these codes in referring to her ARP 2500 synthesizer as a “he” and speaking of her “love affair” with “him”. (Marshall 2015c) Radigue’s knowing gendering (her phraseology in our interview and elsewhere shows this to be more than an accident of language) of her synthesizer disguises a serious point: the ARP is an instrument that she manipulates and controls. This makes her ludic response a politically-charged *détournement*, which is given greater weight when balanced against the context of sexism that she faced in her early career.⁷

This process of anthropomorphisation brings her synthesizer into the field of relationships. Radigue’s *détournement* is an example of an upending of conventional dynamics. Another example – this time, of an upending of the

⁷ Translated as a hijacking or re-routing, the strategy of *détournement* was politically energised by the Situationist movement of the 1950s-60s.

researcher-narrator dynamic – comes in the words that Radigue speaks as we conclude our interview (and first meeting) in 2015: “I would like to know something more of you.” Radigue’s request goes to the heart of what might occur in an empathetic interview, a “mutual sighting”. In acknowledging the importance of this process, the oral historian Mary Stuart cites Jean-François Lyotard: “You cannot open up a question without leaving yourself open to it. You cannot ‘scrutinise’ a subject without being scrutinised by it.” (Lyotard 1992, cited by Stuart 1993: 80) For Stuart, the oral history interview is energised and deepened by the “interaction of selfs” [sic]. (Ibid: 81)

Interactions: the sonic artefact

This research is about many things: the lives and working methods of the composers involved in this study but also about the interviews themselves, and their affective lives within me and my journey towards the identification and theorising of the sonic artefact.

This research is constituted around relationships – Stuart’s ‘interaction of selfs’ – that are situated in two main areas: the interpersonal and the sonic. There is a human interaction between me and my composer-narrators; the sound – the speech – we generate is one record of our interaction. However, one of the properties of these sonic records is its resonance. Sound holds history in its continual echoing, its referencing back, to what has been, what was. The sonic artefact, as theorised in Chapter Five, provides a way of hearing these historic resonances; and because these resonances sound in the present a dialectical tension is created that is rich with meaning. The sonic space of this meaning, and its deep resonance, as expressed within the concept of the sonic artefact, is the subject of Chapter Five.

“Well, hello, sister!”

The Her Noise map also reminds us of the existence of so many female artists who are inadequately served by academic or historic memory, artists whose achievements have not been recognised by the musicological canon and are

therefore in danger of being erased from future study. An urgency to address and reverse these lacunae is at the heart of this research. This is a survey of five composers, all of them named on the map. Whatever their ages, they are all originate from First World nations and from the dominant ethnicities of these countries. In the interviews that form the practice of this research, Ellen Fullman (born in Memphis, Tennessee) and Annea Lockwood (born in Christchurch, New Zealand) display an acute awareness of their personal origins and they both, in separate ways, address their lack of contact with those excluded from the dominant, white European-originating hierarchy. Fullman, in a wry exposé of the racist double-think exhibited by the civic elders of her Deep South background, notes how her grandfather, a man whose physical appearance shared visible characteristics associated with Native Americans, was deemed to be Irish for the purposes of belonging to the Memphis Irish Club. The nonsense of this position is not lost on Fullman. She explains that, for many in the Deep South, to have Native American DNA markers within one's genotype is also to share an African-American heritage, as racial mixing was common. When Fullman told this story to Oliveros and her wife, Ione⁸ (an African-American woman herself), the latter responded, "Well, hello, sister!" (Marshall 2015a: 00:09:00)

Fullman's reportage of Ione's exclamation is an entertaining anecdote. However, it could be used to stand as a metaphor for the welcoming reclamation of women's history in experimental music and those lives and works that have been occluded, unseen or unheard of.

The selection of composers

All five of the composers on whom I focus on are named on the Her Noise map. I have chosen them for their variety of work but also for the way that, to some extent, their work and stories complement one and other. I have focused, in the main, on older composers to begin to assemble a picture of how women were working in the early years of experimental music. No one is aged less than sixty years old. Nevertheless, there are inevitable lacunae in this research. I use a

⁸ Writer and poet Carole Ione Lewis, known as Ione, and henceforth referred to in this way.

small data set – five composers – and I am aware that there are so many more deserving of critical engagement and reflection. My choice is not to diminish by exclusion, the work of, for example, Laurie Spiegel, Laurie Anderson, Ruth Anderson, Meredith Monk, Pamela Z, Laetitia Sonami, Hildegard Westerkamp, Miya Masaoka, Yoko Ono and so many other artists. The absence of these artists relates most of all to time and accessibility. My ambition is to extend this interviewing practice to more composers as a post-doctoral project.

Nevertheless, difficult decisions were made about who to include and who, at least at this stage, to postpone as subjects for research. Age has been a significant factor in my choices and there is an undoubted urgency to reach the older composers and to help secure them in the musicological and sonic historiography. I am fortunate to have interviewed and corresponded with Radigue, the eldest of this quintet; lucky, too, to have been able to interview Oliveros a few months before her death in November 2016. I am conscious of those whom I have been unable to reach because of age and infirmity: I think especially of Pade, who died in January 2016.⁹ In the main, I have focussed on composers who source their sounds from locations outside their bodies. La Barbara, the sole vocalist/composer in this group, must here stand in for other expanded vocalists/composers, chiefly Monk, but also Diamanda Gálas, Sussan Deyhim and Shelley Hirsch. The selection of the five composers who do feature in this research is offered in the spirit of the historical practice of microhistory, a method that zooms in on the small detail to achieve a more acute and critical perspective on a larger whole.¹⁰

⁹ My original plan included travelling to Copenhagen to interview Else-Marie Pade (Danish composer, 1925-2016). This was something I very much wanted to do, for Pade had had a fascinating life. A former pianist, she was in an all-female group within the Danish Resistance during the war and interned in the Frøslevlejren prison camp between 1944-45 by the German occupation forces. While there, she apparently used the metal buckle from her girdle to scratch musical notation on her cell wall. In prison, she had an epiphany of music bursting out of her. After 1945, she studied with Schaeffer and Stockhausen and she became Denmark's first *concrète* composer. Between 2014-15, I was in contact with her recent collaborator, Jacob Kierkegaard, the Danish sound artist, about how to visit Pade, who lived in a care home outside Copenhagen. However, it became clear that Pade was too frail to be interviewed. Of my failure to reach her while she was in better health, I offer as an example of the urgency of my project.

¹⁰ I am thinking of the approach of historians such as Carlo Ginzburg (1976) and Emmanuel Le Roy Ladurie (1980) in their studies of, respectively, of Menocchio, the sixteenth-century heretical miller, and of the French village of Montaignou during the fourteenth century.

Composer connections

The five composers are not isolated in their own fields. They inhabit important historical and musicological contexts and their compositional work constitutes ground-breaking advances in contemporary classical and experimental music and sound work. Their networks encompass nodal points of contact with all the recognised canonical figures of contemporary experimental musics: Joan La Barbara and Pauline Oliveros with John Cage, Morton Feldman and David Tudor; Éliane Radigue with Pierre Schaeffer, Pierre Henry and Robert Ashley; Annea Lockwood with Karlheinz Stockhausen and the Darmstadt composers, as well as, in London, the divisive, restless figure of Cornelius Cardew. Within this quintet, Oliveros herself emerges as a nodal or hub figure, linking them all and functioning as a central presence for a younger generation of musicians, performers and scholars. Ellen Fullman, alone of all the composers in that she has travelled from a fine art background into sound sculptures and composition, is a musician who, in her invention of her own instrument, typifies the craft, the maker-ness of experimental music.

While long-string harmonics have a documented history that stretches back to ancient Greece, Fullman's self-initiated discovery and research in this area, leading to her invention, development and continual modification of the Long String Instrument, injects a level of sonic and concrete materiality that is often missing into experimental music making. For this reason, Fullman is included in this research as a composer whose music-making and compositional method strongly links the adjacent worlds of music and sound art. She is also the youngest composer in this research: it can be argued that her ability to transition between media – from the plastic to the sonic – has been facilitated by the compositional methods developed by those older than her.

Art does not happen in a vacuum; its process and existence is contextualised by the social, educational, economic and ideational levels of support that it requires as a precursor to its creation. Writing in 1970 Oliveros (2015a) and, in 1971, Linda Nochlin (2015a) have both drawn attention to the way that patriarchal and repressive social constructions have acted to first construct a myth of the 'great

artist' and then to either exclude or under-represent women from the ranks of 'great' artists. We should add that these exclusions resound even now, and include not only women, but other minorities who fall outside the traditional power bases.

However, I am aware that my five examples have all been drawn from a small pool. They are all Westerners working, whatever their later interests, within a cultural and musical history that begins in Western classical and contemporary classical music. They were enthusiastic in taking part in my research: my invitation arrived, perhaps, at the right time for them. Three of this quintet were born, raised and, with the exception now of Oliveros, who died in 2016, still practise in the United States. The two who were not – Lockwood and Radigue – have been shaped by (and helped to shape) the musical culture of the experimental music field in the US. (Lockwood has lived in the US since the early 1970s. Radigue herself has lived mostly in her native Paris, although residencies in the US, especially during the 1970s, proved invaluable to the development of her musical and technological method.) Their five stories and the participating actors within these stories intersect to build here a broader picture of the experimental music world that they inhabit.

Mothers of invention

A larger theme of this thesis is the audacity that each of the composers has had to embrace to become an artist. In Chapters Three and Four, I frame this within an Hélène Cixous-inspired (1976) rupturing, a breaking of prior constraints. However, with breakage – of the initiation of breakage – there must be a sense of the possibility of a radical self-reinvention. Among the five composers, this sense of reinvention – what I will refer to in Chapters Three and Four as the identification of a frame and the breaking of it – has been achieved in different ways.

To take the example of Lockwood: she was born into a professional middle-class family that was also highly active within the conventional boundaries of classical music. Her frame-breaking embraces both compositional form and cultural

sensitivity. Born and raised in New Zealand, her father was a solicitor, her mother a musician. While the Lockwoods were not empire builders (historically speaking, they were too late for that), they were, as were countless other families, part of what historian Ashley Jackson describes as the “‘white’ dominion power bloc in the international system based on Britain’s relations with its settler offshoots Australia, Canada, New Zealand, and South Africa” (Jackson 2013: 72), and were thus embedded within an enduring imperialist, colonial project. Lockwood does not speak to her sense of being an imperial (or even, post-1949, a Commonwealth) subject, but she will reflect – with a marked regret – on her distance from the indigenous Maori culture of her birth land. The wanted cultural territory of the motherland is an unmotherland. I ask her about the carved piece of cow bone, a Maori symbol, that she wears as a necklace. I describe its image in the interview in words that could be understood as sonic terms, as something “spirally and circular... it moves like a wave”.

Louise Marshall: It’s beautiful. Will you tell me what it is?

Annea Lockwood: *No, I can’t anymore.* I was given it by a very dear friend of my mother’s, years and years ago. [...] I love it dearly, my talisman.
(Marshall 2016c: 00:59:00. My emphasis)

Lockwood’s sentence suggests a loss or displacement of information. This feeling of displacement is not an uncommon one among the children of a colonial/imperial regimes or of diasporic unsettlement (Caplan 2001; Buettner 2004). Coupled with a growing political consciousness, these are both contributory factors in Lockwood’s renaming of herself. By incorporating Ea, (possibly) the name of a female Maori goddess, into her first name, Anna thus becomes *Annea* and consequently effects a symbolic rebirth:

[...] I felt that there was something strange about being born in a country... It was not so much a diminishing connection to New Zealand as a non-existent connection to the Maori people. It began to seem increasingly strange to me to have been born in a country within such a clear racial divide, and I didn’t like it, and wanted... was deeply regretful that I had not made an opportunity for myself to connect Maori people. (Marshall 2016c: 00:58:00)

Lockwood's process of reinvention as an artist and composer includes also the growth of a political consciousness and the desire to shift her subjectivity and thereby enrich her cultural and sonic world. We see this illustrated by the expansive nature of sound in her compositional practice in which new sonic territories are created through the conflation of geographies and sonifications.

Key terms and dating

Experimental music: definitions

As Michael Nyman (1974) identifies, the terminologies describing post-war experimental musics (that is, musics that cannot be categorised easily within the lineage or parameters of classical music), vary widely. Among the terms widely in use we can count among them *musique concrète*, avant-garde, radiophonic music, electronic music, aleatoric (or indeterminate) contemporary classical music, electro-acoustic music, serialist and post-serialist music.¹¹ Simon Emmerson (2016) points out that each genre-definition generates its own “an attendant canon”, which has implications for official (or not) musical histories. Many of these definitions overlap. Often each designation is a portmanteau designation, covering yet further categories. For example, if minimalist music is accepted as a sub-section of contemporary classical music, then it creates a rationale for programming Oliveros and Radigue in a festival entitled Deep Minimalism (London, 23-26 June 2016), even though there is no point of contact between their compositional methods and those of more identifiable minimalists such as Terry Riley, La Monte Young, and, in their early works, Steve Reich and Philip Glass.¹² Electronic music is now so wide a designation that it more accurately describes a mode of production rather than any meaningful description of compositional method.

¹¹ This is by no means an exhaustive list of the categories of composition since 1945. Like all designations, each one is not an exact one and there is considerable dialogue amongst composers and musicologists over tradition and ideational lineage.

¹² Wim Mertens recognises that “the title *minimal music* [his italics] is only an approximate description” that relates to musical form rather than aesthetics. Glass and Reich soon rejected the genre category that they were tagged with as unhelpful. (Mertens 1983: 11)

Nyman tentatively categorises experimental music under four headings – Composing, Performing, Listening, and Consequences – that distinguish it from avant-garde or contemporary classical music. (Ibid: 3-26) Within these four headings, he then considers aspects such as notation form, processes, singularity (“The Unique Moment”, *ibid*: 8), and the identification of a music’s performers. Nyman distinguishes experimental music from the preceding avant-garde and positions experimental music as a spontaneous development that occurred in the early 1950s: while it lacked the “linear history” of conventionally-based musics, it still had a historical background and this background was more likely than not to draw from a range of ideas and concepts that offered new ways of listening, of fluid goals, of performing. Importantly, Nyman traces a fundamental iconoclasm in the way experimental music meets the world that is seen in the attempt of composers “to break away from the limiting structure of the prevailing Germanic tradition”: he can thus set Cage and Stockhausen in opposition to one another, as representing, respectively, the experimental on the one hand and the avant-garde on the other. (Ibid: 27)

Nyman’s classifications are prescient in that he identifies listening as a locus for attention in experimental music. However, he neglects the role of community in the development of ideas and compositional modes and this is an omission that is being addressed by later scholars. Ethnographic interest in contemporary musical communities has its exemplar in Georgina Born’s *Rationalizing Culture* (1995), which uses IRCAM in Paris as its site of fieldwork, and combines anthropological theory and psychoanalysis, with an emphasis on group relations and a Kleinian-centred interest in psychic processes in a group unconscious. Benjamin Piekut (2011) begins to rectify this omission. In writing about the multiple avant-gardes in the jazz and New York’s Downtown music community in the 1960s and after, he rightly calls for a “fresh appraisal of 1960s experimentalism to register the ambivalence of the connections between these two avant-gardes, the ways in which these communities were both connected to, and separated from, each other in powerful ways.” (Piekut 2011: 3) In a later publication, Piekut addresses the London new music scene of 1965-75 – a period close to the one which Nyman covers – and cautions us to remember that:

Experimentalism, like any music-historical entity, was a messy series of encounters and performances; it was made and remade in specific acts of translation (the rendering of differences into equivalences), and these acts were never centrally controlled. To gloss Bruno Latour [1988. *The Pasteurization of France*, p. 216], we could say that ‘experimental music’ does not exist, but ‘it is the names that have been pasted onto certain sections of certain networks, associations that are so sparse and fragile that they would have escaped attention altogether if everything had not been attributed to them.’ (Piekut 2014: 771)

Piekut applies Latour’s actor-network theory (its basis is in Latour’s *The Pasteurization of France*, which had its first English translation in 1988) to musical communities, thereby accentuating the importance of community and social networks in the development of music scenes. (Oliveros, his former professor, often said, “Don’t build a career; build a community!”) As one of my contributions to knowledge, this thesis argues that such affective ties have been crucial to the work and careers of my chosen composers; and while it understands that not all networks are nurturing and supportive (see, for example, Lockwood’s laconic commentary on Cardew’s domination of British experimental music in her interview), they have been under-theorised as contributory factor in musicology.

Experimental music as a historical category

I use the word ‘experimental’ to designate musics that have an innovative and interrogative approach towards the broad contexts – musicological, historical and social – in which they stand. ‘Experimental’ thus pertains to the relationship of a composer’s music to what precedes it as well as that composer’s control over it and authorial intentions regarding it. I pick up on this iconoclasm inherent in Nyman’s definition and reposition it as a frame-breaking (see Chapter Four) that has liberatory consequences for both the music and its mode of creation. Following the work of Joke Dame (1994),¹³ Renée Cox Lorraine (2001), Hannah Bosma (2013), and Joyce Shintani (2016) in extending Cixous’s (1976) literary-

¹³ Joke Dame first moots the extension of Cixous’s literary-based *écriture féminine* into an “*écriture féminine musicale*” in her untranslated thesis, *Het zingend lichaam* [*The Singing Body*] (1994). I rely on Bosma for my understanding of Dame’s text.

formulated concept of *écriture féminine* to the sonic – changing it to what Holly Ingleton refers to as an *écouter féminine* (Ingleton 2015: 41) – I will advance the notion of an *écriture féminine musicale/vocalisant*, as the sounding of a feminist-centred iconoclastic composition.

With the exception of Fullman, all the composers whom I interview have had sustained contact with a classical musical formation. Some of these composers have had more rigorous trainings than others. Lockwood (a pianist) and La Barbara (a soprano) trained initially in the most conventional settings. Although Oliveros’s instrumental training was on the accordion (she describes it as an “outsider instrument”) (Marshall 2016c: 00:06:00),¹⁴ she also, at least in her youth, played the French horn and tuba, both more classically conventional instruments. These three composers received tertiary-level education in music and composition. For Radigue, who had had three children by her mid-twenties, musical education was, after high school, the product of her own seeking – adult classes in harp, piano and voice, and then, later, training at the Studio d’Essai in Paris with Schaeffer. Fullman’s musical training was, by her own acknowledgement, minimal, and indeed began as a result of an art school engagement in performance and sonic sculpture. (Importing visual expression in which to talk of her early interest in music, Fullman will speak of the shaping and envelope of a sonic phrase.) This means that these five composers have contextual relations and differing intensities to the musical fields that they entered and now occupy. Nevertheless, because they all operate within a musical field they all share a dialectical relationship with the varieties of post-war composition forms that have grown up.

Timeline

I have started this thesis at the convenient – if imperfect – date of 1945 for the main reason that it was only after the Second World War that many of the social and technological changes occurred that enabled the work of the five composers

¹⁴ Von Gunden (1983:16), Gagne (1993: 212), and Mockus (2008: 89-90) note that Oliveros was aware of the accordion’s image as a working-class instrument that was outside conventional orchestral use.

who form the backbone of this research. (McMurray 2017) It is not a perfect chronology. Although the invention of magnetic recording predates my period by several decades, it was only in the post-war period that the availability of tape, the machines and the associated leaps in technological innovation necessary to the development of electronic musics began to become more widely available. The equipment for these modes of composition was often centred in national broadcasting studios, which is why institutions such as the BBC, Radiodiffusion française in Paris, and the Cologne-based Nordwestdeutscher Rundfunk (NWDR, 1946-55) occupy such central positions in the history of post-war electronic music. (Griffiths 1978: 158)¹⁵ Kyle Gann (1997: 255-6) lists the successor to the NWDR, the Studio für elektronische Musik des Westdeutschen Rundfunks (WDR) in Cologne, where Stockhausen created many of his early works; Tokyo's Nippon Hoso Kyokai (1954); and, in 1955, in Milan where the Studio di Fonologia Musicale (1955-83) was set up by the composers Luciano Berio and Bruno Maderna. In London, the BBC Radiophonic Workshop (1958-1998) was home to a group of significant female composers working with experimental sound: its co-founder Daphne Oram, was the first woman to create an electronic studio; Maddalena Fagandini (1929-2012), who later crossed over into television production; and Delia Derbyshire who achieved a cult status (that continues to this day) after she transformed, through methods adapted from *musique concrète* and electronic technologies, a snatch of tune by Ron Grainer into the theme music for the long-running television science-fiction drama, *Doctor Who*.

Pierre Schaeffer's (1910-95) pioneering work with *musique concrète* had, in fact, begun a few years previously in 1942, when he, alongside others, founded the Studio d'Essai, the experimental sound laboratory in Paris, which was linked

¹⁵ While the studios of Cologne, Paris and London are a point of focus for historians of electronic music, significant studios also existed in other locations: for example, Danmarks Radio in Copenhagen, where the electronic composer Else Marie Pade worked. Even where studios were rudimentary (as in Cairo), tape music was possible, as with Halim El-Dabh's (1921-2017) works, made in the 1940s. Other institutions important to the development of electronic music were universities (especially, in the US, Columbia-Princeton Electronic Music Center, where Éliane Radigue, Laurie Spiegel and Charlemagne Palestine worked) and technology companies.

to the national state broadcaster.¹⁶ Following the end of the war in 1945, changes in the technological production of the magnetic tape used by recording machines made it easier to obtain, and thus, began to make this new medium available. In addition to this, there was, in Europe, the question of re-legitimising the medium of radio following either collaboration with Occupation authorities (in France) or, in Germany and Italy, the fact that the state broadcaster had been a mouthpiece for the respective dictatorships. Experimental studios thus represented a step away from a *status ante quo* and a way of envisaging a new and untainted way of working.¹⁷

The Columbia-Princeton Studio, headed by Otto Luening and Vladimir Ussachevsky at Columbia and Milton Babbitt at Princeton, opened in 1952 when a joint funding application to the Rockefeller foundation won the funds to purchase a Mark II Electronic Music Synthesizer, made by RCA. In the US, the San Francisco Tape Center was founded in 1961 by composers Morton Subotnick and Ramon Sender: Pauline Oliveros was a core member of the Tape Center and would later become its director following its absorption into Mills College. Among the institutions and studios listed above, the Tape Center was unusual in that it was developed from composerly initiatives of Oliveros, Subotnick and Sender and that it was allied to a wider avant-garde performance scene. (Bernstein 2008: 2)

New technology offers new sounds, new possibilities. But how new was this world for the women coming into it? The stories told by my composer-narrators reveal that there was much of the old world replicated in more modern structures of work and

¹⁶ During the French occupation, the Studio d'Essai had been a section within the national state broadcaster, subject to the purview of the German forces. However, Schaeffer's active role in the French resistance protected the studio and, post Liberation, helped legitimise its work.

¹⁷ The new tomorrow offered by technological music was not politically neutral. There were some intriguing political forces at work in the funding of new music in post-war Europe. Both Frances Stonor Saunders (1999) and Amy C. Beal (2006) study the involvement of the US CIA in funding experimental music in Europe, and, especially, West Germany, as part of a Cold War initiative. This has had the effect of creating, in Beal's words, "a new music culture in West Germany [that] constructed a canon of American music and actively promoted, produced and distributed its most provocative representatives. In so doing, Germany created a context of prolific exile for American experimental music." (Beal 2006: 2) Beal cites twelve composers by name, among them Pauline Oliveros, John Cage and Morton Feldman. This might help explain Ellen Fullman's remark to me about feeling validated as an artist for the first time on visiting Europe: "It was my first experience of having some kind of dignity at all as an artist." (Marshall 2015a: 01:17:00)

composition. Their journey into composition and invention is the achievement of an *écriture féminine musicale*: it is a territory that they have had to map for themselves.

Volume I: chapter breakdown

There follows below a short description of the two volumes, chapters and appendices that constitute this thesis.

This introduction is followed by an Intermezzo consisting of concise critical biographies of the five composer-narrators (Éliane Radigue, Pauline Oliveros, Annea Lockwood, Joan La Barbara and Ellen Fullman) whom I interview. They are listed in order of birth. Each biography provides the essential factual and contextualising information that the reader needs to take with them through the thesis. Critical remarks will be made in the Intermezzo, although these will be, at this stage, confined in the breadth of their analysis.

Chapter One: “The black hole of no info”

This contextual literature review considers how the existing historical record covering the wide range of experimental music has neglected to register and critique the contribution of female composers to its corpus of work. The work of my five composer-narrators can be classified as experimental within Nyman’s terms. (Nyman 1974: 1-26) This neglect has the dangerous effect of unbalancing the historical record and potentially silencing the hugely original and innovative musical voices of the women within this field. A rectification is necessary, not only as a service to a fuller record, but as a continuing practice of feminist scholarship that needs to actively search out what, and who, has been left behind and to ask the reasons why this has happened. The five composer-narrators – have been chosen for the importance and quality of their compositional work. Their testimonies will shed light on how they have had to adapt to new ways of working as a strategy to access their lives as artists and composers. The identification of these reasons for their under-reportage leads me into the next

chapter, which details the intersecting methodological tools that I will apply to the narratives that I gather from my narrators.

Chapter Two: Towards a deeper listening: method and methodologies

This chapter articulates the methodological tools that I bring to bear on this research. These methodologies come, in the main, from oral history theory, psychoanalysis and literary theory, gender/feminism, performance, musicology and sound arts. At points, I will employ auxiliary methodological formulations that are taken from the social sciences, mathematics and phenomenology.

Chapter Two will consider the interplay between these approaches, the points that they diverge and the points in which they come together.

Chapter Three: Theorising the interviews

In this section I introduce, in a sustained manner, the voices of my five composer-narrators. It is here that the composers describe how they imagine themselves as artists and develop their voices within an already marginal area of music. In analysing my interview material, I organise my material around the encounter of the interview; the construction of the narrative structures; and the affective interview. I also reflect on my own position within the interviews as an implicit actor in the relationship that they engender. My conceptualisation of the sonic artefact arises directly from the experience of the interviews. It isolates a separate space – a third term between the protagonists of the interview encounter – as a place for the generation of new meaning.

Chapter Four: In their own words: inside the inter/view

To effect innovative work, artists must first identify those frames which constrain them and, secondly, to break and, ultimately, redefine those frames. Adapting Cixous's (1976) writing on the emancipatory power of *écriture féminine*, I apply her Lacanian-inflected conception to a position in which both music and interview can be theorised in terms of *écriture féminine musicale/vocalisant*, and thus seen as a sundering of psychic and creative restrictions governed by an otherwise dominant symbolic order.

Chapter Five: Hearing the Sonic Artefact

This chapter describes the development of my conception of the sonic artefact, a journey that began with Éliane Radigue repeating to me a phrase often uttered to her by her mother: “*Hein* [Isn’t it?], Éliane?” This theoretical chapter discusses the rupturing effect of sound in terms of temporalities, listening, and theories of space, using psychoanalytically and topologically derived theories of boundaries, sonic theory, and oral history, and proposes ways in which the sonic artefact can be applied to new situations to access a deeper listening and meaning. This resonifying of the interview also points to the radical uncontrollability of sound and how its sensuous materiality activates other, psychic and intellectual dimensions.

Chapter Six: “Call them composers!”

The *Postcard Theater* of Pauline Oliveros and Alison Knowles (1974) posits a parallel history in which five canonical male composers are recast with outsider statuses more often associated with women. Oliveros and Knowles were producing alternate historiographies to comment about reality, and reality in this case meant the absence of female artists of all types in the musicological canon. As the feigned histories created by the composer Jennifer Walshe (2015) demonstrate, the invisibility of female (and other marginal) artists remains a contemporary problem. Through a methodology that combines an expanded Deep Listening and the use of the sonic artefact, I offer an approach to begin to ameliorate the situation, not only in musicology but also in much wider fields.

Appendix

Bibliography

Volume II: interviews

Full annotated transcriptions of my five interviews, arranged in chronological order.

An attached storage device contains all five interviews in MP3 formats.

Intermezzo:

Critical biographies

This section consists of brief biographies of the five composers who feature in this research, with the purpose of presenting essential information on each composer in a single section. In this way, the various biographical details pertaining to each composer are contained in an accessible way. While I endeavour to treat each composer in the same way, with approximately the same amount of attention given to each one's biography, achievements and ways of thinking, because each one has lived a different life in different circumstances, emphases may differ. Éliane Radigue and Joan La Barbara are the only members of the five who have children, and thus their lives and working practices will reflect their experience and work of motherhood. While I do not intend to introduce argument into this section, I will highlight important features of the composers' work and, connect with my larger theme of framing (breaking, identifying and redefining frames) as compositional strategies that they have employed. Framing will be discussed in greater length in Chapter Four. Thus, the Intermezzo is a linking passage situated here between my introductory section and Chapter One's contextual/literature review. The Intermezzo sets out the initial circumstances – or frames – out of which the five composers came, and in this way, provides the information necessary to critique their mature work. The composers are listed in order of birth.

Éliane Radigue

b. 24 January 1932, Paris, France

Lives and works in Paris

Éliane Radigue was born in Paris into what she describes as a *populaire* (working-class) family. Her father was a shopkeeper in Les Halles; her mother was, she says, “strong”. Radigue means, in this case, that she was a difficult presence and, early on in the interview, she speaks of her mother's severity. Radigue was an only child. She is the eldest of the group of composers that I focus on.

As a child, Radigue received piano and theory lessons from Madame Roger, a teacher whom she describes as a “goddess”. (Marshall 2015c: 00:11:00) Radigue’s mother was to terminate these lessons with shocking abruptness. Radigue suggests that the reason lay in jealousy, but we could raise the possibility whether reduced family finances at a dangerous and uncertain period – 1940-42 – in French history played a part. In an extraordinary act of subterfuge and aided by an accomplice (another mother), Roger continued to teach Radigue in secret. In high school, Radigue was musically active. After leaving school, Radigue moved to Nice (where she had relatives). Aged nineteen, she set up home with Arman (Armand Fernandez, 1928-2005), an artist who would gain fame within the *Nouveau Réaliste* movement. Their first child was born in 1951. The couple married after the birth of their second child.¹

Radigue’s awakening to the extended properties of sound occurred around 1951, a period when she was taking harp classes at the local conservatoire and studying ragas, serialism and other musical forms. The harmonic possibilities suggested by the sounds of engine drones from a nearby airfield captured her imagination, but she had an epiphany upon hearing a broadcast of a *musique concrète* work by Pierre Schaeffer. A chance introduction to Schaeffer led to her being invited, in 1955, to work – as an unpaid *stagiaire* (intern) – at his Studio d’Essai in Paris. She juggled motherhood with this opportunity. She did not dare to think that a life as a composer was possible.

Radigue’s compositional life has, for the most part, been spent in the electro-acoustic world, using tape machines, synthesizers, long loops and microphone feedback as a means of music making. Between the early 1970s to the early 2000s, she worked mostly on the ARP 2500 modular synthesizer, using a combination of filtered oscillators.² *Elemental II* (2003)³ – created for bassist Kasper T. Toeplitz – was the first of her work with other musicians. She followed this with her three *Naldjorlak* (2005-08) compositions and in her ongoing *OCCAM* (2011-) series.

¹ Radigue and Arman’s children are Marion (b. 1951), Anne (b. 1953), and Yves (1954-89). The pair married in 1953, separated in the late 1960s and divorced in 1971.

² Her last work for ARP was 2000’s *L’Île Re-Sonante* (Shiin, 2005).

³ *Elémental I* (1968), formed from treated natural sound sources, feedback and tape loops, was realised at Pierre Henry’s Studio APSOME.

In the 1960s, Radigue lived in New York with Arman. After the marriage ended, Arman supported Radigue's compositional life in a *quid pro quo* for her support of his career. When she returned to Paris in 1967, she became the unpaid assistant to Pierre Henry, whom she knew from the Studio d'Essai. Henry was then working on his *L'apocalypse de Jean* (1968), and he had tape machines and other equipment installed in Radigue's flat so she could combine her technical work with that of motherhood. Between the mid-1950s and early 1960s, she essayed a few tape compositions, which she tentatively titled *propositions sonores*. She destroyed most of them: her *Asymptote Versatile* (1960) is now the only extant one.

Living again in New York in the early 1970s, Radigue accessed synthesizers for the first time. She met significant people on the new music scene, including composers Phill Niblock, Jon Gibson and Steve Reich. She began a long friendship with Pauline Oliveros. She shared a studio at New York University with composer/technologist Laurie Spiegel: they both worked on a Buchla synthesizer installed there by Morton Subotnick. *Chry-ptus* (1971), created on a Buchla, was Radigue's public debut in New York. She created *Arthésis* (1971) on a Moog, but soon after began using the ARP 2500: *7th Birth* (1971), created in New York, is her first ARP composition. Radigue's Parisian debut was in 1972 with *Geelriandre* (ARP, tape and prepared piano). As she became more well known, she received government commissions to work on the five *Songs of Milarepa* (realised between 1981-83) and *Jetsun Mila* (1986).⁴

Radigue's tape and synthesizer work is characterised by the subtlety of its long, developing tones and the long durations of the works. By slowing her sounds to a point where rhythm is barely discernible, she accentuates the dynamism of sound as well as the endless process of its transition and of its translations of energy. (Gray 2016b: 44-45) Radigue's music thus brings into the process of composition its antithesis – a strategy that I describe as (de-)composition. The slowing of tempi is most marked in Radigue's electronic works, but it is identifiable in her *OCCAM* series as a focus on sound before there is a sound. She draws attention to this transformative

⁴ *Songs of Milarepa* was financed by a *bourse à la création* from the French Ministry of Culture, while *Jetsun Mila* was financed by a *commande de l'état* from the same ministry.

coming into being in this way: “There is something which is in the air and it becomes sounds.” (Marshall 2015c: 01:16:00)

Radigue’s growing involvement with sound, its life-cycle, and the community that its listeners create together predates her more formal Buddhist engagement, which started in 1975. The evolution of Radigue’s music reaches its apotheosis in the *Trilogie de la mort* (1988-93), of which the first section (*Kyema*) is inspired by the Bardo Thodol (“The Great Liberation through Hearing”), the text that is mistranslated into English as the *Tibetan Book of the Dead*. The *Trilogie*’s modulations offer a sonic compositional structure that reflect Buddhist teachings about death and the cycle of rebirth.

Events in Radigue’s life are woven into the *Trilogie*. *Kyema* is dedicated to Radigue’s son, Yves, killed in a car crash in 1989. The third section of the *Trilogie*, *Koume*, is dedicated to Radigue’s Tibetan master, the tenth Pawo Rinpoche, Tsuglag Mawey Wangchuk (1912-91). Radigue studied with this high lama in the Dordogne between 1975-79 and she credits him as the one who brought her back to composition from a life of seclusion. (Warburton 2005: 30) For Radigue, the Pawo continues to be one of the most significant people in her life.

This Buddhist tradition of direct teaching is mirrored in Radigue’s recent works. The scoreless *OCCAM* compositions are made in close collaboration with other musicians, a process that she describes as the sharing of “sound fantasies”. (Radigue 2009b: 49) Luke Nickel (2016: 24) describes the way that Radigue transmits her ideas as a “scaffolding” process that results in a score that is embodied not as an object, but as a living entity within the body and virtuosity of the performer. Radigue’s transmission of her method to select people is one of direct engagement with the person she has chosen.⁵ I am reminded of what she tells me of her relationship with her Tibetan master: “[...I]t is always the teacher who will choose you.” (Marshall 2015c:

⁵ Composer Laetitia Sonami (French, b. 1957) speaks about her relationship with Radigue thus: “We became close very friends, one of those friendships that changes the directions of your life.” (Rodgers 2010: 227) Harpist Rhodri Davies (UK, b. 1971), for whom Radigue wrote *OCCAMI* (2011), speaks of the minimal verbal instructions that the composer gave him, likening this to an oral transmission more characteristic of folk traditions, but also suggesting something telepathic. (Prosaic 2011)

01:53:00) I, too, am ‘chosen’ and implicated within her transmission process, not as a musician, but as someone who interprets her.

Pauline Oliveros

b. 30 May 1932, Houston, Texas, US

d. 24 November 2016, Kingston, New York, US

Pauline Oliveros’s compositional work rests in a listening practice that grew to encompass an acute attention to all possible listening environments. This is to simplify her vast corpus of work, which unites a deep engagement with sound and music, feminism and gender politics, education and a larger humanitarian mission. In developing what she came to call Deep Listening, Oliveros moved the Cageian imperative (in 4’ 33’’) of listening to *one* environment to a matter of listening to *all* environments. This radicalisation of Cage has implications for both the listener (the receiver of sound) and the person who is the sound source: Oliveros’s listening accentuates their place in a networked universe of soundings.

Oliveros grew up in Houston, Texas, with her brother, mother and grandmother. Her father left when Oliveros was still young and the two older women gave music lessons to support the family, thus modelling for the young Pauline the possibility of a female-led economy. She describes listening exercises she devised to hear the sounds of the natural world. She played various instruments at school – violin, French horn and tuba – before taking up the accordion, the instrument that she played throughout her life. An introduction to tape technology at an early age enabled Oliveros to see the possibilities it offered to the development of new compositional techniques.

She studied composition at the University of Houston, before moving to San Francisco State University. She moved cities for personal reasons. Certainly, one of these had to do with making a home in a place that was more liberal than Texas: Oliveros was open about her homosexuality at a time when it was difficult to be so.⁶ In San Francisco, Oliveros soon established herself within the

⁶ Ramon Sender: “I don’t know how much you know about Pauline’s struggles, but as a gay woman in the San Francisco music scene in the early 1960s, it was absolutely an uphill battle for her. She had a very, very hard time, she was very impoverished, making ends meet by copying

experimental music communities of the city: her fellow students included Terry Riley and Loren Rush. Morton Subotnick and Ramon Sender co-founded the San Francisco Tape Music Center (SFTMC, 1962-1966, when it moved to Mills College) in 1962 and Oliveros joined it. It was, as to be expected, very technically orientated: Oliveros taught herself the electronics that she needed to make early tape works, but she spoke often about how she felt excluded by the male-bonding that went on over the circuit boards, and despite the good relations she had with her fellow composers, it was a difficult period. Her early works brought a defining interest in a musicological feminism to her tape compositions: *Bye-Bye Butterfly* (1965) is a two-channel deconstruction of an aria from Puccini's *Madame Butterfly*. For Oliveros, it was a way of pulling the curtain down on nineteenth-century operatic tropes of female passivity and, in its loops, a way of 'rescuing' the heroine from her fate. Later works, most significantly *To Valerie Solanas and Marilyn Monroe in Recognition of their Desperation* - - - (1970) and the sound exercises collected as the *Sonic Meditations* (1974), are explicitly feminist strategies for tackling the silence of women in musical and public life. Oliveros wrote prolifically; her 1970 article for the *New York Times*, "And Don't Call Them 'Lady' Composers" (Oliveros 2015a), was an important broadside against the belittlement of women in the musical field. Read in tandem with the art historian Linda Nochlin's 1971 essay "Why Have There been No Great Women Artists?" (Nochlin 2015a), Oliveros's text is a defining moment for a refocusing on the systemic effects of sexism.

Appropriately, for someone who was a part of a politicised second-wave feminism, Oliveros believed that changing systems was a key to social justice. As an educator (first at Mills College, where the SFTMC moved in 1966: she became its first director there, then as a professor at many other American universities) and board member for various grant-giving bodies, she practised a kind of redistributive justice. Community-building was important to her: the *Sonic Meditations* came out of exercises created for a one such community, the female improvising ensemble – the ♀ Ensemble. Timothy D. Taylor (1993: 388) suggests that Oliveros, having rejected a conventional classical

music and giving private lessons on the accordion and occasionally landing a performance.” (Bernstein 2008: 79)

(and, we can add, an avant-garde) music-making, found in community and ritual a way of establishing a sense of Otherness in music/sound-making. She was to briefly experiment with feminist-separatist distributive systems as a way of imagining alternative economies, but an increasing sense of how all people are inscribed in sound led her away from this. By putting communal practice (of many types) at the forefront of her music, Oliveros has directly pointed to the importance of networks as a sustaining base for wider artistic practice.

An enthusiastic and early uptake of technological opportunities also characterised Oliveros's work, whether working with the Expanded Instrument Series (a way of developing protocols to enable digital instruments to communicate with one another via MIDI-interfaces), leading an orchestra of avatars on online platforms, for example, or leading Deep Listening workshops around the world. Over time, Deep Listening has assumed many aspects, including physical movement, and an interest in unconscious processes. Oliveros's practice – and eventual legacy – of an expansive Deep Listening comes from this multifaceted base that links music, a bodily presence and an unconscious dreaming to a sonic base.

Annea Lockwood

b. 29 July 1939, Christchurch, New Zealand

Lives and works in New York, US

Born into a securely middle-class family of enthusiastic music-makers, Annea (born Anna) Lockwood has a solid training in classical and avant-garde musics. She studied the piano and composition first in New Zealand and, after 1961, at the Royal College of Music in London, before attending numerous summer schools at Darmstadt and in Holland in the early 1960s. This European immersion in serialism, post-serialism and electronic music was hugely important as a way of pointing her towards new compositional strategies as well as providing contact with many of western Europe's main composers, Gottfried Michael Koenig chief among them. However, on returning to London, she came to understand that the rigid compositional forms promulgated by serialist techniques were not what interested her.

Lockwood's return to London coincided with the development of a vibrant new music scene in the UK. The foment and the main characters on this scene are described by Michael Nyman (1974) in what is the only contemporaneous attempt to provide a musicological analysis of what was developing. One of the dominant – and controlling – figures was Cornelius Cardew, who led the Scratch Orchestra. A charismatic man, Cardew was a polarising figure and many chose not to work with him. Lockwood, who had visited the orchestra, was one of these. While this allowed her the freedom to begin to develop a compositional practice that had an early interest in process and ritual, it nevertheless had the effect of isolating her from the flow of activity that was happening around Cardew as well as coming into the purview of Nyman, very much the chronicler of that period.

In the mid- to late 1960s, Lockwood worked with artists drawn from many areas – sound poets, choreographers and other musicians. She began a series of process compositions – the *Piano Transplants* (1969-2013), which could take the form of piano burnings, drownings, and plantings – as a way giving a (de-)compositional parallel to sound decay. She took part in Gustav Metzger's Destruction in Art Symposium in London (1966), but was left unsatisfied by it, writing to me in two emails:

My strongest memory [of the symposium] is of how unsatisfying the piano destruction that Ralph Ortiz and I did was and how it contributed to my strong preference for placing defunct pianos in situations of slow decay via natural processes. You might say – sounds a bit pompous but as far as I recall, true. (Lockwood 2016d)

And adding:

PS Looking at that image of Ortiz and Pierrot having at a supine piano with axes does, however, give me more of a sense of why people construe my Piano Burning as destructive in intent, though. (Lockwood 2016e)⁷

⁷ I had sent Lockwood a link to this image of Ralph Ortiz and Paul Pierrot destroying a piano: <https://tinyurl.com/gvhfra3> (Last accessed 26 April 2018)

Thus, it is important to read Lockwood's piano actions as immensely creative works which play on the translation of energy – natural and sonic – from one form to another. This is a compositional strategy that she continues to use.

Moving to New York in 1973 was a natural transition, given Lockwood's affinity to musical groups there, as opposed to in Europe. It was Oliveros – with whom Lockwood had had a long-distance friendship, initiated by their participation in the short-lived but influential magazine, *Source: Music of the Avant-Garde* since the early 1960s – who created the possibility of Lockwood's moving to the US. Composer Ruth Anderson, at Hunter College, needed someone to cover her teaching while she took a sabbatical. Oliveros suggested Lockwood; Lockwood moved over. She and Anderson subsequently became life-partners.

Lockwood's compositional ingenuity has assumed many forms, one being the creation, with Fluxus artist Alison Knowles, of a magazine of text scores entitled *Womens [sic] Work*.⁸ Along with *Tiger Balm* (1970), which combines feline sounds with a female-voiced erotics and pitch-shifted instruments, this is her most explicitly feminist work, although the theme can be read into later works. It was around this period that she changed her name from Anna to Annea, as a way of approaching an indigenous culture that Lockwood, as a person of European descent, was otherwise unable to access. The renaming is thus a nominal strategy of expanding one's world and personal cultural allegiances.

Around this period, Lockwood began making compositions using the natural world as her sound source. Rivers and other bodies of water were recorded and resonified in various ways to suggest new mappings. Still later, Lockwood used sonifications of frequencies inaccessible, for reasons of frequency or distance, to human ears. This continues to be a way of joining up a world as one huge sound source. It is a radical strategy that situates both her and us, her listeners, inside the flow of a world of sound. Lockwood's geographic sense of flowing sound has been most recently expressed in *bayou-borne, for Pauline* (2016). A tribute of tributaries for her dear friend, *bayou-borne* is a graphic score that structures itself around the flows of six bayous near

⁸ It ran to two issues.

Houston, Texas, Oliveros's birthplace, as they flow into a sonic afterlife of oceanic proportions.

Joan La Barbara

b. 8 June 1947, Philadelphia, Pennsylvania, US

Lives and works in New York City, US

Of all the forms of music and sound-making available, the voice is both the most immediate – in Joan La Barbara's (1976) phrase, the original instrument – as well as the medium that poses the greatest challenges to interpretation. Because the figure of the singer is a lone instrument, there is a greater tendency for collective projections to be applied to them. Jane Green (1997: 28) draws our attention to the figure of the singer as one that is on display, a passive – and therefore, gender-coded – figure, a screen available for projections. The existence and gender consequences of this scopophilic gaze have been analysed by Laura Mulvey (2009 [1975]) with regards to psychoanalytic concepts to film theory. But while Mulvey's work is paradigm-shifting for its feminist interrogation of the gaze in the visual field, no such corollary yet exists for the sonic field. I submit that the sonic artefact offers this corollary (see Chapter Five). To do so, one must acknowledge the oscillation between interpretation and composition, of what composition entails and how close, especially within experimental music, interpretation is to a co-composition. This point has relevance to the work of La Barbara. Indeed, were one to suggest an unreconstructed audiophilic 'gaze', it would need to dismantle sexist tropes of a musician's interpretation as being distinct – and aesthetically lesser – than the composition itself.

La Barbara's initial training was towards becoming a full classical soprano: it was a pathway that, by her early twenties, she had refused. In her interview (Marshall 2016b), she gives an indication of how difficult it was to leave this lineage, to break out of this framework: she describes a strong teacher whom she effectively runs away from. La Barbara had contact with experimental and avant-garde music from her early days as a young artist. She was to become an expert interpreter of the vocal music of John Cage, who also wrote for her.

The closeness and tension between interpretation and co-composition is evident in her accounts of working with Cage; clearly, he was a generous composer. So, too, were Alvin Lucier and Larry Austin. Others were not so generous. While working in the ensembles of Steve Reich and of Philip Glass, La Barbara contributed significant compositional ideas to the development of, respectively, *Drumming* (1970-71) and *Einstein on the Beach* (1975; its premiere was in 1976). Both important statements of minimalist composition, the works quickly assumed a canonical status. In our interview, La Barbara elaborates on the vexed issues of collaborative work and of being accorded recognition for one's own inputs. (Marshall 2016b: 00:42:00 et seq)

La Barbara specialises in extended vocalising, a technique that extends the sonic dimensions of the human body. This has enormous implications for how the singer (and it is invariably female singers who specialise in these techniques) occupies the platform and the sonic space. By breaking the frame of traditional sonorities – expressed in compositional form or the range/timbre of a voice – I suggest that La Barbara's extended vocals redefines a sonic territory. We hear something of this in a co-composition with Austin, "La Barbara: The Name, The Sounds, The Music" (for voice and computer music on tape, 1991). (La Barbara 1993) In this tripartite work, La Barbara speaks about being drawn to the "flow" and "gesture" of the name "La Barbara" (which is a slightly amended version of the surname of her first husband): she illustrates this sonically by improvising sounds around the name. The musicologist Hannah Bosma comments that this activity:

... stresses the connection between [La Barbara's] authorship and her vocal sound. Her name is presented as a consciously chosen artist-author's name. By improvising with it, this name is integrated into her vocal art. This name has a typical feminine history: it was acquired through marriage. But this name soon changed its status, not being the name of her husband any more, but being chosen, appropriated and changed on musical grounds. In this composition La Barbara is presented as an embodied, plural author, referring to other works outside the composition. (Bosma 2013: 186)

I would go further than Bosma, stressing that La Barbara's creation of a sonic world is a fundamental renegotiation of her place within it. To import La Barbara's frame-breaking into a Cixous-informed *écriture féminine musicale*,

then extended vocals become a way of rewriting a world. La Barbara does this playfully, too: one might understand the *Signing Alphabet* (1977),⁹ made by La Barbara for voice and electronics, with sign-language animation by Steve Finkin, for the children's television show, *Sesame Street*, as offering a new language in which to lodge the extremities of the female voice. Gelsey Bell (2016) points to the edges to which extended vocalising can push: to find new meaning in what others might find unintelligible is, in fact, a navigation of new territory. In this research, I will articulate La Barbara's musicianship as a virtuoso *écriture féminine vocalisant* that also represents a strategy to make her voice heard.

Ellen Fullman

b. 17 June 1957, Memphis, Tennessee, US

Lives and works in Berkeley, California, US

Born in Memphis, Tennessee, to a middle-class family, Ellen Fullman overcame parental opposition to attend art school in Kansas. It was this fine art and sculpture background that preceded and informed her journey into music making. Her first significant work was a wearable sound sculpture, the *Metal Skirt Sound Sculpture* (1979), which produced an amplified, jangling cacophony as its wearer – Fullman – walked. The skirt was used in *Streetwalker*, a performance she made in 1980 for the New Music America festival in Minneapolis, in which she clanked through the city's red-light district.

As a work, *Streetwalker* consciously draws attention to the absurdity within the performance of femininity. Its creation was also highly influenced by fine-art theories around mark-making and pushing the edges of the image outwards. Fullman told me: "I never felt comfortable in a dress and so I put myself in a dress, but it was like armour." (Marshall 2015a: 00:45:30) The skirt thus has a dual function: it highlights Fullman's dislike of gendered attire, but it also protects her against the intrusion of the gaze. The *Streetwalker* performance conveys a gender rebellion that has roots in the complicated construction of femininity within a society battling with the complex

⁹ <https://www.youtube.com/watch?v=y819U6jBDog> (Last accessed 26 April 2018)

legacy of severe racial segregation in the Deep South during Fullman's formative years. There is performance and protection bundled together in one sculpture. In asking to be noticed as a performer of femininity, she is also saying that she will be 'unnoticed' as a woman. There is a taut dialogue between these two poles contained in *Streetwalker*.

Fullman's work marks her out in many ways: she is an inventor of some brilliance and yet she is dependent on self-funded avenues or public grants and residencies. Her music is made on a machine that is consciously outside the narrative of conventional instruments, and it invites us to consider the significance of this. Fullman is outside the academic tenure system and the support that is afforded by art galleries. Poverty has been a real issue for her. (Dayal 2014: 22-25)

Like Radigue, Fullman had to overcome parental opposition to study – first as a high-school student wanting to take extra-curricular art classes; secondly as an undergraduate at a school away from Memphis. Like Radigue, she was helped by a degree of complicity by her father, Victor, a man who had wanted to be an artist but had been unable to through financial issues and military service in the Second World War.

I interviewed Fullman in May 2015. We spoke about her early life in the segregated Deep South, her family, and her escape route from Memphis to college in Kansas, and the Long String Instrument, a self-invented instrument made up of horizontal strings that vary from thirty to forty meters in length. The Long String Instrument is played by its strings being stroked longitudinally by its player, who walks up and down the length of the instrument. The development of the instrument, alongside the tuning and notational challenges it poses, has been her life's work and she has released many recordings of her compositions.

In the interview and in conversations either side of it, Fullman was scrupulous in naming her supporters, mentors and helpers. According recognition to these people constitutes a series of performative utterances that also has the effect of validating her own work. It indicates a two-way process; that, for example, Bob Bielecki helps her means that she is worthy of being helped, that her ideas and her art are worthy of

support.¹⁰ For someone working so completely outside the main frame of either art or music, this is an important flow. Fullman has described the music itself as the “artefact left over from the journey” (Hovancsek 1998: 30), and I argue that the helpers are all significant map references that triangulate her work.

Fullman’s metal skirt and the Long String Instrument are both markedly different as sound sculptures and yet I argue that there is a clear link between them. I suggest that the journey represented here is one that has, in different circumstances, been considered by the philosopher Iris Marion Young (1980), that of the transition from a state of immanence, and a position of objectification, to one of transcendence, in which someone has their own subjectivity.

The changing representation of the performer’s body in its transit from metal skirt to Long String Instrument is significant. Both are sonic sculptures, but the sound has changed. With *Streetwalker*, the sounds are of disorganised clanking. On the Long String Instrument, the sounds are deliberately constructed and composed. There is also a marked difference in the fields of sound and vision. The metal skirt in *Streetwalker* offers a tintinnabulum of noise and disordered sight; the Long String Instrument offers a sound that is almost pure and without rhythm in its sonic architectures of hanging overtones and harmonics. In *Streetwalker*, the performer is accentuated by her skirt. On the Long String Instrument, the performer is hidden in full view, wearing the all-black trousers, sneakers and shirt outfit of an invisible stagehand at a theatre. To put it another way – it is as if the body of the performer has all but disappeared in this transition from noise to composed sound.

This is an achievement that I would like to put in the context of Young’s essay (op. cit.), which comes from the same historical period as *Streetwalker*. Both works are marked by their shared feminist interpretation of social space. Young discusses the *immanence* of being a woman, where the body is bound within a

¹⁰ The suggestion here is not that Fullman needs Bielecki’s validation to function as an artist so much as that Bielecki could be said to be working in a feminine, non-phallogocentric way, *pace* Hélène Cixous’s (1976) formulation of *écriture féminine*. He, and, as we shall see, Phill Niblock, step outside the system of older, male networks in order to help create new networks which acknowledge and promote female artists by making their skills and resources available to them.

series of objectifications. Immanence is the quality of being contained. Any escape requires social, political and spatial change. *Streetwalker* expresses this as a sculpture that is performed on a street where the public theatre of show-and-be-seen is accentuated and hyper-sexualised. It takes place in a state of immanence, of objectification, against which the artist exercises a loud and ludicrous resistance. And with Fullman's movement away from the concrete image of the woman who streetwalks to the woman who plays an instrument on which her body less explicit, we can see something of the difficulty that Young and de Beauvoir pinpoint in their discussion of women in the public space. To apply Hélène Cixous's (1976) emancipatory energy of *écriture féminine* – where the feminine is not so much essentialist as a description of a way of working – to *Streetwalker*, we find that Fullman has, even at this early stage, mapped out a route from the confines of a pre-existing order.

Chapter One:

“The black hole of no info”

It's emotionally draining to have to cope when you're in a place where you don't belong.
Pauline Oliveros (1976: n. p.)

The experimental music of the post-war twentieth and twenty-first centuries is marked by a corpus of significant and ground-breaking compositional work and sound researches by numerous female composers. While experimental music, as a post-war departure from avant-garde/contemporary classical music, is a relatively new field within musicology and sound art history, enough time has elapsed for several important survey books to be written, as well as significant research to be carried out. Yet publications from scholars and musicians such as Michael Nyman (1974, 1999), and Kyle Gann (1997) have not reflected these women's work. Jennie Gottschalk's *Experimental Music Since 1970* (2016) updates Nyman's volume from a more international perspective and makes a start at redressing the gender balance, but hers is a rare exception. This is not so much because of the quality of the composition as the fact that the existing literature, with few exceptions, has reproduced a historical systemic sexism which appears incapable of considering female-authored work. On the few occasions that women's work has been noticed, it has not been evaluated through the lenses of suitable methodologies. Because compositional space is a historically male-gendered area, the result has been what Annea Lockwood so eloquently identifies as “the black hole of no info”. (Rodgers 2010: 2)

Falling through the cracks

In this opening contextual chapter, I survey the existing literature and set out the urgent need to amend the existing historiography by adding the five composers on whom I focus to the canon. By so doing, I aim to redress the yawning gap to

which Lockwood draws our attention when she speaks of how women have not been written into the compositional space.

The case of Johanna Beyer

In 1944 Johanna Magdalena Beyer was buried in a common grave in New York. Born in 1888 in Leipzig, the musician we now know chiefly for her composition *Music of the Spheres* (1938) was one of the first musicians (male or female) to work with electronic music. A former pupil of composer Henry Cowell, Beyer had strong loyalties to her old teacher. She supported Cowell, promoting his music, doing administrative tasks, and acting as a manager for him after he was imprisoned in 1937 on a morals charge.¹

If Cowell returned the favour of loyalty, he did so ambivalently. Amy C. Beal details how Cowell praised Beyer's "fine technique" and "good workmanship" (Beal 2015: 75-76) in what was, for her, a crucial application to the Guggenheim Foundation in 1938 for fellowship funding, and yet, separately, he recommended another younger composer Gerald Strang (1908-83), for the award. Beyer had applied for funding to enable her to write her proposed opera, *Status Quo*.² (The opera was never staged.) Curiously, given the conflict of interests at stake, Strang, a protégé of Arnold Schoenberg, seems to have himself written his own assessment of Beyer's compositional talents for the award: her work showed "originality", he wrote, but it was "diffuse and intellectual" and he "doubted her ability to carry out this [*Status Quo*] project". (Beal 2015: 76)³ Strang's words are loaded with covert gender assumptions that draw attention to Beyer's ability to focus (her work is "diffuse", scattered, without clear aim); her capacity to see a project through; its (masculine) intellectual – as opposed to a more feminine sensual – nature. (Op. cit.) It seems that Beyer is damned if she acts like a man (that is, she has the power and capacity to

¹ Joel Sachs, in his biography of Cowell, ignores Beyer's compositional life and instead replicates the judgements of Cowell and his circle on Beyer as a "pathetic" figure. (Sachs 2012: 302, 355)

² The Guggenheim Fellowship was established in 1925 to fund "exceptional" capacity for scholarship or in the creative arts. Up until the mid-1950s only three women had been awarded fellowships in its music composition category. These were: Ruth Crawford (1930); Louise Talma (1946) and Peggy Glanville-Hicks (1955). Oliveros received one in 1973; and Joan La Barbara in 2004. Laurie Anderson was awarded a fellowship in the Guggenheim's film category in 1982.

³ Neither Beyer nor Strang ever won a Guggenheim award. Dante Fiorello, "hardly a household name today" (Beal 2015: 69), won the annual fellowship *each* year between 1935-38.

compose) and damned if she dares to act like a man in writing “intellectual” music. The subtext to Strang’s report is that Beyer is unwomanly in having ability and ambition. The anxiety provoked by such ‘unwomanliness’ is characteristic of any scenario in which a woman steps away from a conventional gender role.⁴

Situated uncritically in a gendered history, both Strang and Cowell were playing predictable parts. Lucy Green argues that, if “[m]usic delineates masculinity, a male mind, a man behind the music” (Green 1997: 114), then female exteriority in the world of composition follows as a logical consequence. Green situates this problem historically, as an issue in which (neutral) technology and (loaded) patriarchal attitudes clash:

Compositional activity after polyphony becomes increasingly separate from that of performance, requiring more control over instrumental technology and musical technique. At its most extreme points, this kind of composition gives rise to a delineation of genius of the transcendent male ego. In the hands of a woman, it threatens the natural bodily submission of her femininity by clearly demonstrating that she has a mind. (Green 1997: 113)

For Hannah Bosma, Green’s argument reinforces earlier research by Andra McCartney (Bosma 2006: 101) on gender structure and gender symbolism within the entire realm of electroacoustic music – both in its macro-system (for example, its education, financial footing/grants, concerts) and its micro-organisation (studio work, the types of sound employed, for example). The exteriority of women within studios, and therefore, technologically-based music, continues. This is a continuing problem. Recent research from Georgina Born and Kyle Devine (2015) suggests that the take-up of music technology degrees at UK institutions is overwhelmingly male, with students coming from lower social classes than those on traditional music degrees. We shall see that in respect of both composition and technologically-based music, women are thus doubly

⁴ While a referee – Cowell, in this case – might be called upon to submit references for multiple applicants for the same prize, it is a question of practice whether the referee is called upon to rank each candidate. It is uncertain whether these issues were at play in the references that Cowell wrote for Beyer and Strang in their Guggenheim applications. Nevertheless, the point holds that bias for one candidate over another can be reinforced by language that denotes an unconscious bias. It is a prime example of the structural edifice of sexism reflected in and written into the application and shaping of language.

exteriorised. Because female entry into any profession gendered as masculine unsettles gender norms, Bosma concludes:

A female composer is thus perceived as abnormal. She interrupts the status quo and threatens normative (mostly unconscious) ideas about music. Because composition is gendered male, her femininity is called into question. (Bosma 2006: 102)

This questioning of how femininity is either inscribed or, alternatively, threatened by female participation and virtuosity runs through the history of classical music, its repertoire and its performers. Because the classical canon is a precursor to that of experimental music, it is necessary to consider this cultural background. Historical hindsight illuminates the grim irony in that title of Beyer's never-completed opera.

This thesis advances the argument that one of the reasons that women composers post-1945 were drawn to a marginal field of music (the experimental field of music is, in comparison to the classical and contemporary classical field, much smaller) is because their participation was otherwise hampered by the language and structures of systematic sexism. We will hear, for example, Éliane Radigue's account of how she was asked to supply sexual favours in return for a job in a French radio station in the 1950s. (Marshall 2015c: 00:51:00) A reference from Pierre Schaeffer, a powerful figure in French post-war culture and a major electro-acoustic theoretician and composer, could not protect her. Viewed in this light, one can now read – for example – the instructional text-scores collected and published by Alison Knowles and Anna [later Annea] Lockwood in *Womens Work* (1975) as a radical way of not only redressing what is valued as women's work, but as a strategy that demands a rewiring of compositional form and language itself as an emancipatory act.

Beyer lived outside the structure and financial security provided by family support or regular employment; indeed, the historical context in which she lived was difficult for many: she eked out a living as a music teacher. (Beal 2015: 4-5) *Music of the Spheres*, the composition scored for three “electrical instruments or strings” (op. cit.: 5), is taken from *Status Quo*. Beyer's composition is so unusual in its sonic form that Salomé Voegelin positions it against a Heideggerian notion of the transcendental artwork, in that Beyer “opens all composition, sound artworks, and the acoustic

environment, to the possibilities of a groundless musicality” (Voegelin 2014: 143)
Historically, *Music of the Spheres* has an interesting timing in its attempt to broaden the orchestral sound palette with electronically-sourced sounds. Beal notes that:

Music of the Spheres was composed one year before John Cage’s historically celebrated *Imaginary Landscapes #1* (1939), which similarly exploited the possibilities of electric glissandi, coupled with sparse percussion and muted piano accompaniment. (Beal 2015: 75)

And yet we know the figure and the compositional work of Cage, but not that of Beyer. Why was Beyer ignored, and why this neglect of her work?⁵ Is it possible to construct the reasons why? Certainly, her career was crushed by the impact of the Depression in 1930s, and a lack of a supporting social network, precarious work and ill health did not help it. There were some rumours that she was an alcoholic, although it is far more likely that the symptomatology of the neurodegenerative amyotrophic lateral sclerosis disorder from which she suffered was, in her case, confused with the presenting symptoms of alcoholism.

Beyer died at the House of the Holy Comforter, a hospice for incurables, and she was buried alongside 103 other women. Beal’s biography of Beyer includes a photograph of the headstone to this common grave. (Beal 2015: 5) Beyer is listed approximately three-quarters of the way through the space on the headstone. The stone records Beyer’s name as *Bauer*, the German word for farmer. *Bauer* is a common-enough German surname but it was not Beyer’s. This casual disregard for the dignity of the most basic of facts – a name of one’s own – stands as a trope for the neglect, the unrecordedness, that runs through the lives of many women artists.

The case of Maryanne Amacher

A more recent example of neglect is that of Maryanne Amacher (1938-2009), the American electro-acoustic musician who died in 2009, after a stroke following a fall she had had at Bard College, New York, where she had taught some summer courses in electronic composition. Although there are instances in which Amacher’s personal

⁵ “Forgotten” and “neglect” are words used in relation to Beyer by Kyle Gann and John Rockwell respectively. Beal cites both these instances. (Beal 2015: 90-91)

and professional life, like that of Beyer's, was marginal, they nevertheless intersected with other composers focused on in this submission, especially Pauline Oliveros and Lockwood. Amacher was joined to them in a loose network – an internet of mutual recognition, support and friends. There are parts of Amacher's life in which she connects with mainstream players within the marginal world of experimental electronic and contemporary classical music. One instance was her studies with Stockhausen when he was teaching at the University of Philadelphia in the autumn of 1963 (Wörner 1976: 249); another is her collaboration with composers Morton Subotnick and Cage, and choreographer Merce Cunningham. (Gray 2009: 12)

It could be argued that Amacher was, in many ways, at the centre of new music and that she was coming into a beneficial contact with influential people. One of these was certainly Oliveros, who made a significant and generous use of networks and her positions in the various organisations, fellowship and grant-making bodies whose funds can underpin and sustain artistic practice to aid artists in their work. This was a deliberate strategy on the part of Oliveros and it was one that she employed during her long career:

It has always been important to me to bring people together any way I could. Maybe it is because my family split apart. My father went off to the World War II, but then when he came back he already had a new family that I hadn't known about, for example. It has always been important to me that people should come together. I think it is partly that, that you could create positive connections with people. (Marshall 2016c: 01:05:00)

These unmeasurable lines of connection and communication cannot be undervalued: they can be compared to patronage networks, to the operation of friendship as a method as well as a methodology. Indeed, “friendship as method” – a redefinition of friendship as a fieldwork, open to ethics, bonds and dialectical tensions that has been advanced in ethnography by Tillmann-Healy (2003) – is cited by Rodgers as a way of interrogating the many intersecting links that bind people together to “build friendships and cultivate professional support”. (Rodgers 2010: 3) Amacher's singular compositional work had admirers amongst critics, musicians and composers alike for its acute use of auditory distortion as a way of understanding sound and music in time and space.

And yet this net of connections and friendships was not enough to save Amacher: what has no basis in materiality is also friable. What is also known about Amacher is that her life was precarious. It was anchored by neither regular earned income or fellowships and grants, along with the tangible benefits (in the US context, I think primarily of health insurance) that flow from the anchorage of employment or secure funding. Composer and critic Kyle Gann writes, in his blogged obituary, of a visit to Amacher's rundown, "soggy house" in upstate New York and her "bright red overalls"; he makes a guess at her low weight. She was, he writes, one of the music world's 'most bizarre characters'. (Gann 2009b)⁶

What should we make of Gann's observations? They could indicate concern for Amacher. His descriptors, focussing on Amacher's clothing and body, could be considered an indicative element of the type of writing this is, that, is, a journalistic blog post, written on the day of Amacher's death. He expresses affection for her. Yet borne out of a male-structured gaze (Mulvey 2009 [1975]), his adjectives smack of an objectification of the person that they modify. They are an example of an uncritical and unreflective sexism that sees the female body as object rather than considering what that body might be capable of. Gann's adjectives sit oddly in a text that, however complimentary about Amacher, nevertheless constitutes an obituary.⁷ Curiously, Gann does not build on his observations of Amacher's house, her clothes, her body, so that he might question them. It was generally well known that Amacher wore overalls – actually, ski suits – because she was unable to heat her dilapidated house, whose roof let in water and whose walls let out warmth. Damp in the "soggy house" also threatened Amacher's valuable collection of tapes and other archival items. Following Amacher's death, an archive has been created by artist/curator Micah Silver and composer Bill Dietz with the aim of saving and conserving of what Gann describes as

⁶ Gann notes in an update that that the birthdate he supplies (1943) comes from the *New Grove Dictionary [of Music and Musicians]* and is erroneous, but he adds that the dictionary gets her *birthplace* wrong. This confusion over concrete detail underlines the lack of factual rigour and critical notice of female composers, which is indicative of their general neglect within the existing historical and musicological record.

⁷ Gann's obituary of, for example, Pierre Boulez (6 January 2016), leaves his body untroubled. <https://www.artsjournal.com/postclassic/2016/01/boulez-est-mort.html>

the mass of “wall to wall [...] papers, tapes, and technical equipment” that filled her Kingston, New York, house.⁸

To be fair, Gann is not the only person who, speaking *post mortem*, cites the domestic disintegration that surrounded the composer, or, indeed, her scanty weight. Soon after Amacher’s death, the musician Bill Brovold (2009) wrote, within what is otherwise an affectionate obituary, about her barely habitable house *and* her appetite: “She came to my son’s high school graduation party and ate a surprising amount for a woman who only tipped the scales at 85 pounds.” He writes, too, about how much wine she drank on that occasion. A few years later, the (much younger) composer Sergei Tcherepnin, who shared the Kingston house with Amacher, remembers the place as being in state of near-collapse: Amacher had provided a crash helmet for those wanting to use the bathroom so unsafe was its ceiling. He speaks, too, of her unpredictable work schedule, and how she might prepare dinner for a 3am sitting. (Schimana and Tikhonova 2013)⁹

These small details – Amacher’s eccentric working habits, her crazy house, her appearance, her body and the amount and nature of her calorific intake – are not made with any overt intention on their authors’ parts of diminishing their subject. And yet their cumulative effect does exactly this. These details are bound together with an ambivalent fascination located in their recounting, a process which nevertheless works towards an unconscious representation that mirrors the distorting lens afforded by sexism and patriarchy. For all the references – the overt texts – to Amacher’s compositional talents, there are subtexts that run in parallel and in counterpoint. These subtexts are concerned in emphasising Amacher’s uncanniness: they accumulate to describe a woman who is without control, unhomely and therefore, unwomanly and – in her un-secret display of these traits – *unheimlich*.¹⁰ (To take the Freudian concept of *das Unheimliche* further, the improvising guitarist Thurston Moore [Marshall 2015b],

⁸ Oliveros lived in Kingston, New York. She told Gann of Amacher’s admission to a nursing home following the fall. I mention this to indicate the network of friends that can aid and sustain relationships.

⁹ Sergei Tcherepnin should not to be confused with his uncle, the synthesizer designer Serge Tcherepnin.

¹⁰ *Das Heimliche* translates from German as ‘a secret’, therefore its antonym – *Unheimliche* – means ‘unsecret’. The word is close to that meaning unhomely (*unheimelig*, adjective). Freud (1990) works through comparative etymologies of these words: the slippage between home/known/unknown/secret is linguistically richer in their German-language iterations.

whose collaboration with Amacher can be witnessed in Andrew Kesin's 2004 film, *day trip maryanne*, suggests that Amacher was conscious of her effect on others and would play with it. He recounts how she liked to await trick-or-treating children on Hallowe'en.)¹¹ A barely conscious ambivalence is key to the posthumous tributes paid to Amacher. For every quantum of praise for her music, there is another for her eccentricities. Gann, Brovold, Tcherepnin and the very many others who helped Amacher in all kinds of ways are kindly and well intentioned and my text is not intended to denigrate them, or their affective ties to Amacher. Rather, I want to highlight the difficulty of looking at, of seeing, of evaluating, of hearing, a woman when we are all bound within a systemic sexism from which it is difficult to continually sidestep.

Yet it is easy to be wise after the event: here was someone living in poverty. Amacher taught summer classes in electronic music at Bard between 2000-09, meaning that she did not have a salaried position. She was a person who could be difficult to help, who barely had enough money to feed herself, let alone repair her roof. Despite being recognised for her work, despite friends, Amacher nevertheless lacked a reliable material and economic support structure that might otherwise have kept her safe. Silver, in 2009 the music curator at the Experimental Media and Performing Arts Center in Troy, New York, and friend of Amacher, leaves a telling comment on Gann's blog post:

She was impoverished. It's important that people know that. Maryanne was a rare bird of abnormal brilliance and dedication. It is worth, upon her death, for us all to think about how we can change the structures around us (and by chain reaction our society) to embrace and support people like her. Why was no organization or government capable of keeping her above the poverty line? There could have been a lot more work. *Poverty is a full-time job*.¹² (Silver, commenting on Gann 2009: n. p. My italics)

¹¹ Moore's story is evidence of Amacher's friendliness towards children, an attitude that works against the 'unwomaning' in the other descriptions of her.

¹² Silver suggests that Amacher's poverty was far worse than he indicated in his post on Gann's online obituary for her: "And actually the truth cuts even further than that quote would reveal for most readers' imaginations of her circumstances." (Silver 2015, email) Thurston Moore confirmed this to me in an unpublished interview on 30 October 2015. (Marshall 2015b)

The search that all artists conduct for a stable income is always a highly important facet of their lives. For Oliveros (between 1976-79, at UCSD) and Lockwood, for example, stability was provided by academic tenure. That Oliveros gave up her tenured position at UCSD was both a leap of faith and indicative of a self-confidence in her ability to create a future income stream.

Locating and defining the cracks

Maryanne Amacher is chronologically close to this research. She lived and died in a period of civic affluence; her life was not marked, as was Beyer's, by the upheavals of immigration, of global economic depression and world wars. There is more than a gap of years separating 1944 from 2009. And still Amacher – that “malnourished bundle of bone” (Curran 2009) – died in poverty and from complications to do with poverty. Work and recognition in all careers in the arts have always shared a complicated relationship, a relationship mediated by many issues: gender, habitus, economic and more. However, the circumstances of these two deaths bear no direct relationship to the quality of their compositional output. Their poverty had more to do with the fact that neither of them ‘fitted in’ to a grid of career and professional valorisation which privileges the already privileged. Although both composers produced important, valuable work in their respective areas, this was not enough.

Marginality does not end in death. Posthumously, Beyer and Amacher share a precarious position in the historical record. At least they have a position of sorts: Anna Beer (2016) lists some of the other female classical composers – Fanny Hensel (née Mendelssohn), Clara Schumann, Lili Boulanger and Elizabeth Maconchy among them – whose work has been blurred by the lack of memory and critical focus applied to it. This is not a problem only of a deeper history. In the immediate aftermath of Oliveros's death, I found how – even – so significant and energetic a composer as she was, was yet to be secured in the musicological record and her posthumous legacy established.

Éliane Radigue: rejecting the casting couch

If there were to be any doubt of the necessity of these support networks, methods, I reproduce below this excerpt from my interview with Radigue. To put the excerpt in context, Radigue has been championed by Schaeffer, for whom she has worked as an unpaid assistant in Paris. Radigue then lived in Nice in the south of France with her husband, Arman, and their three small children: travelling to Paris could be arduous and so Schaeffer gave her a letter of recommendation to the director of an experimental studio attached to the radio station in Nice. Radigue was in her mid-twenties at the time of her interview with the director.

Radigue's words (spoken on the audio recording in English) here, and elsewhere in this thesis, are reproduced verbatim. They have not been adjusted to bring them into a correct English.

Éliane Radigue: [In '56] Pierre Schaeffer had given me a letter to ask the radio in Nice to give me a few hours a week to follow... Which meant that he considered that I could have enough independency for that but when I went there, immediately I realised that the director [...] was seeing me was much more attracted by my anatomy.

Louise Marshall: By your anatomy?

Éliane Radigue: Because I was young, I was quite nice. So I was very clear on that point and I knew exactly how to take this stance in avoiding any wrong move, which would encourage... But the result was that he answered to Pierre Schaeffer that he had no time and job to give to me.

Louise Marshall: No job in Nice for you. I see.

Éliane Radigue: This was, you know, the real macho system and it was so obvious. It is obvious when a man is just checking you out and without saying anything, ready to make... "If you want but we will make a deal." I said, "I don't want to make this deal." And

that was over.
(Marshall 2015c: 00:51:00)

Radigue refuses to give the radio director sexual favours and, despite Schaeffer's letter of recommendation, she is rejected by the man who has propositioned her. As we see in relation to the Scratch Orchestra's gender politics, artistic/musical revolutionary acts do not necessarily correspond with emancipatory practices. The director's invitation to Radigue is a misogynistic strategy deeply embedded in any system where there are inequalities of power. Even when approximations of power are fulfilled, unreconstructed attitudes that deny other civil rights and dignities can affect someone's enjoyment adversely. Speaking to Martha Mockus, the author Jane Rule (a friend of Oliveros's), told of how the composer had felt isolated at Mills College. (When the San Francisco Tape Music Center relocated to Mills in 1966, Oliveros went with it as its director. She stayed for one year before leaving for a new post at the University of California, San Diego.) Rule (and Oliveros) understood this social exclusion and rejection to be on the grounds of Oliveros's lesbianism. (Mockus 2008: 67)

The importance of record

The failure of musicology

Scholars such as Susan McClary (1991), Joke Dame (1995) and Georgina Born (2016) have issued salutary reminders as to the very newness of feminist musicology. The essays that constitute McClary's *Feminine Endings: Music, Gender and Sexuality* (1991) were written during the late 1980s: she accurately describes them as the "beginnings of a feminist criticism of music". (McClary 1991: 31) Dame points to the difficulty that "equality-minded" feminism (Dame 1995: 108) has in constructing a feminist musicology. She suggests that to succeed, such a musicology must recognise and interrogate the "embodied female subject" (ibid) of its research and to look further afield to new interdisciplinary areas in order to develop and apply theory that recognise and deconstruct the difference of the female voice. Either way, both identify a need for greater study. Born (2016) has referenced the inadequacy – she uses the term

“evacuation” – of conventional musicology to challenge the way in which canonical histories have excluded those who fall outside a defined and self-perpetuating canon. This inadequacy lingers in musicology. The strictures of the canon as it relates to art-historical criticality have, in recent years, been challenged continually by art historians who include Lucy Lippard (1976), Linda Nochlin (2015c), Griselda Pollock and Rozsika Parker (1995 [1981], 2013), Pollock (1999), and Terry Smith (2009). Writing about the practice of art history in relation to visual art, Pollock (1999: 4) has written of the “impoverished and impoverishing filter” that the structure of the canon reinforces. In this field, the dominance of an art canon formed around a Western cultural habitus has been recognised, with Nochlin leading the way with her trailblazing polemic from 1971, “Why Have There Been No Great Women Artists?” (Nochlin 2015a). Musicology is late to the feast in its adaptation of a new criticality.

As I have said, recordings and other documents relating to this research will be deposited in the Her Noise Archive. That my research has an archival element is significant, for one of its aims is to compensate for the lack of documentation that exists on so many women composers. Oliveros, who published continually throughout her long career, realised this in terms of her own practice. Her many books, interviews, uploaded papers, workshops and performances should be considered as not only a canny way of securing her own legacy, but also as a way of generating a control over her works. Oliveros understood the importance of archives just as she also understood that she was important enough to have an archive. This is not the product of overweening pride so much as an acute recognition that if an artist leaves no trail of documentation, no evidence of practice, then their place in subsequent histories will become imperilled. Archiving and documenting was, for Oliveros, a crucial practice; it is a discipline that leaves an evidential trail to women’s work that has been accomplished and it is a tactic that will, eventually, evidentially, reverse the way that women have been marginalised.

New noises: from *écriture féminine* to an *écriture féminine musicale*

Viewed from the standpoint of Oliveros's "And Don't Call Them 'Lady' Composers", the article that she wrote for the *New York Times* in 1970 (Oliveros 2015: 47-51), archiving is also a feminist practice for it creates and enables history to be written. An archive is not only a repository of the past: it is also about the possibility of future action. When, in "The Laugh of the Medusa" (1976), Hélène Cixous writes about the "*what it will do*"-ness of women's writing, this is, in part, what she means. (Ibid: 875)¹³ For Cixous, the process of *écriture féminine* – feminine writing – for women is a political imperative: it is an action by which a woman assumes a cultural, political and historical weight. Cixous underlines the revolutionary nature of women's writing in summoning the revolutionary history of 1789: *écriture féminine* is "the (feminine) new from the old" (*la nouvelle de l'ancien*). (Ibid.) It leads to "indispensable ruptures and transformations" at two levels: that of the individual level of self; and secondly, at the level of speech, and the "*seizing of the occasion to speak*". (Op. cit.: 880) In Chapter Five, I shall return to Cixous's theorisation of *écriture féminine* as a way of thinking about the sonority of experimental music and the process by which masculine writing reinforces the position of the dominant hierarchies in acting against it.

The application of *écriture féminine* to the sonic – to create what Joke Dame (1994, cited by Bosma, 2006, 2013)¹⁴ terms an *écriture féminine musicale* – has occupied many scholars interested in how considerations of the feminine – in its multiple meanings – has been represented in music. Bosma (2006: 103) traces how Dame reaches her understanding of *écriture féminine* via the application of Julia Kristeva's (1984) concept of the semiotic as that which disrupts linear meaning to emphasise more latent meanings located in tone, rhythm, non-linguistic communications and gestures. Working in a separate stream, Renée Cox Lorraine's (1991: 333) understanding of an *écriture féminine* moves Kristeva's non-linguistic communications to a place of pre-language, typically present in the play and interaction between the mother (as female body) and

¹³ "I shall speak about women's writing: *about what it will do*." (Cixous 1976: 875)

¹⁴ Bosma's 2006 paper appears in a marginally altered form in her 2013 doctoral thesis.

child. By doing this, Lorraine homes in on an unmediated immediacy of communication – unmediated in that it takes outside the meaning-realm of the symbolic. It can be seen, therefore, how the raw and direct sound of that which comes from outside meaning has been tasked with emancipatory form. This is something that is raised briefly by Christoph Cox (2005) in the context of the Her Noise exhibition and developed by Joyce Shintani (2016). Holly Ingleton (2015: 41), on the other hand, posits an *écouter féminine* that takes as its territory “ontological beliefs about sexual difference and materialist thinking about sound and the body”.

Ingleton aside, Cox and Shintani deal with *music* and not the subsection of experimental music, which bears a multifaceted relationship to the greater musical context in which it is located; and neither of them consider the wider field of the sonic – of sounding and resounding, the system of sonorous references (*renvoi*) that the philosopher Jean-Luc Nancy describes as “tendentially methexic (that is, having to do with participating, sharing or contagion).” (Nancy 2007: 10)

It is important to stress here that Cixous is not playing out any position of biological essentialism when she speaks of the masculine or feminine. A man can perform feminine writing; a woman can perform masculine writing. As Cixous (1976) makes clear in her “The Laugh of the Medusa”, masculine (or phallogocentric) writing reinforces a reactionary attitude that refuses the idea of difference, and it does so within the “Logics of Destruction” (Cixous 1994: 113) that employ the tools available: sexism, misogyny, and so on. A feminine writing is thus a way of challenging convention and of refusing an order that conflates women’s work with women’s bodies – that is, weak or “diffuse” work (to revisit Strang on Beyer) generated by the denigrated “lady” bodies that Oliveros (2015a) rails against.

Cixous evokes the petrifying power of the mythical Medusa in a feminine – and feminist – riposte to Freud’s “Medusa’s Head”. In this short essay from 1922, Freud links decapitation (the fate of the snake-haired Medusa) to the symbolic field, and, specifically, the fear of castration engendered by the sight of the female lack. This lack is expressed via an action of psychic displacement. In

Cixous's terminology, Oliveros is – in writing text and music, in archiving, in creating – locating herself in history. She is rendering herself audible, visible, to those who are yet to come as well as those in the present. Cixous writes:

Woman must write her self: must write about women and bring women to writing, from which they have been driven away as violently as from their bodies – the same reasons, by the same law, with the same fatal goal. Woman must put herself into the text – as into the world and into history – by her own movement. (Cixous 1976: 875)

In these terms, Oliveros is writing “her self”. Oliveros seizes the occasion to speak, to write, to sound. However, Oliveros is unusual in this respect. For every composer who has her eye on their legacy, there are many who have not been able to think or act in these terms. My research takes as a starting point the importance of documentation, of encouraging composers to speak in their own words, about what it is that they do, why they do it and what it means to them. The interviews generated perhaps offer a limited measure of reparation for the lacunae in historical musicology and the silenced voices that have gone before. I offer Beyer as an example not of her individual failure, but of a collective failure in which I indict historians, musicologists, journalists. She was failed in terms of the networks that should sustain, connect and nourish not only artists, but all people. Amacher is another, more recent, example of such failure, and so, too, is Else Marie Pade. That Pade's work – as a composer involved in early iterations of radiophonics and *musique concrète* at Danmarks Radio, Denmark's state broadcaster – and working methods are not well documented, I offer as an example of my failure as a journalist and researcher. By the time I was ready to speak to her, she was too frail to speak to me.

The death of Pauline Oliveros

Here, I should reflect on my own position in this research and its interviews, which are themselves destined for an archive. This is neither an ethnographic disclosure, in that I bring my subjectivity and my habitus to my own form of fieldwork (the interview); nor a discussion of the fictive presence of a journalist within an interview, when the interrogator's agency is rendered, by a sleight of

hand, invisible and unheard. Rather, it concerns an urgency and a realisation that, upon death, a memorialising and critically reflective record needs to be established. The second part of this task takes time; the first part concerns the speed with which the newspaper and magazine media works. I realised very quickly, within twenty-four hours of Oliveros's death, that the creation of this record needed to be instigated and, in the absence of anyone else, by me. In this way, I entered my own research not only as a researcher but as also a journalist.

Oliveros died on 24 November 2016, five months after our interview. Ours was one of the last interviews that she gave. (We had met on several occasions prior to this, although this was the only time that I interviewed her.) Our last meeting was in London on 26 June and my last contact with Oliveros was via her wife Ione on 10 October. This last contact was via a short, work-related but affectionate email – the registers of professional work and friendship are mixed together in it in a way that echoes Tillman-Healy (2003) description of friendship as method.

Once Oliveros's death was made public the following day – people outside her immediate circle heard of it via a Facebook posting by Ione – social media rang with tributes to Oliveros and with expressions of consolation for Ione.¹⁵ Hundreds of people from across the world joined in, as artists, former students, musicians, friends, educators, Deep Listening practitioners, and admirers wrote tributes to Oliveros and shared memories of her. While, during her lifetime, Oliveros was the hub of many types of networks (educational, compositional, Deep Listening, etc.), it felt as if a huge, formerly latent network created by Oliveros over a lifetime of work had been energised and activated. Writing now, I see how securely Oliveros had documented herself. I see, too, how social media responded to the news by bringing together many communities who shared their thoughts and memories of the composer. Plans came together for tribute events, which (so far) have ranged from the large-scale (concerts, for

¹⁵ I heard the news in London late on Friday night (25 November) from the artist Aura Satz, who had collaborated with Oliveros and Laurie Spiegel for her film, *Dial Tone Drone* (2014).

example) to the smaller (sonic meditation meetings).¹⁶ I acknowledge that the sites I refer to – principally Facebook and Twitter – offer a blunt method: they speak only to the people who are already in Oliveros’s networks. Nevertheless, this social media activity very much reflected and amplified in its reach and velocity the networks that Oliveros promoted in her own lifetime. In this sense, by posting our own words about Oliveros and offering hyperlinks to sites hosted by other people, we were both enacting and reinforcing a network.

However, this network does not constitute a more formal recognition that will endure or that will confer longevity. It has a validity that is solely self-referential. It is not (easily) searchable; it is not capable of being referenced. It has no academic rigour for it exists (in as much as it does exist) outside a system of academic scrutiny. While its boundaries are undoubtedly porous, in the sense that new participants or actors can be added or to join of their own volition, it exists outside the historical record. Lockwood’s “black hole of no info” (op. cit.) is closer than one would like to think.

After Oliveros: research into praxis

In the immediate aftermath of Oliveros’s death, I found that my role as a researcher had, by necessity, to be backed up by my activity as a journalist sympathetic to her legacy. I was concerned that her death should be noticed and that the resoundings of her work should be recorded. The experience of doing so was interesting in its enactment of the tension between the informal network and the formal record. I contacted the *Guardian* newspaper (for which I have written in the past) to check that it would be carrying an obituary. I asked the relevant editor: had she heard of Oliveros’s death? The paper had covered Oliveros’s work before, so I assumed that she would be of interest to it. I listed

¹⁶ Tributes included radio programmes in numerous countries, concerts held in the Second Life online space, localised memorials in many cities (including the inauguration of the Deep Listening Plaza in Honor of Pauline Oliveros in Kingston, New York), an event at the New York Public Library (22 December 2016) and a major event that combined Oliveros-related installations, stories and sonic meditations plus a concert, by the International Contemporary Ensemble at New York’s Park Avenue Armory (6 February 2017). Organised by McGill University, Montreal, *Still Listening – un hommage à Pauline Oliveros* is one large event that was originally planned as a Festschrift for what would have been Oliveros’s eighty-fifth birthday on 30 May 2017. The project included an exhibition and concert series. For its eighty-five commissioned scores, see: <http://stilllisteningoliveros.com> (Last accessed 29 April 2018)

some key reasons why she was important. Would it be covering it in a formal obituary? If no one else was at hand to write one, I offered to write this. The editor decided not to. (The death of the Cuban president Fidel Castro, on 25 November, the day after that of Oliveros's, had had an impact on editorial decisions regarding printed space, but, editorially speaking, this should only be a short-term issue.) I then contacted BBC Radio 4's *Last Word* programme to make sure that they knew of Oliveros's death and, again, offering my services if they needed an obituarist. The BBC producers agreed that Oliveros should be included in their programme and a few days later, I recorded an interview for broadcast. I also wrote about Oliveros in an essay for *The Wire* magazine's online edition. (Gray 2016a) While I was at the BBC, the studio manager asked me about Oliveros's music. "What was it like? Was it like [the music of] that woman – oh, that woman, you know, that woman?"

"Do you mean Delia Derbyshire?" I replied. Derbyshire had worked at the BBC Radiophonic Workshop between 1960-73 as a studio manager and had been a hugely important figure in the workshop's compositional output.¹⁷

"Yes! That woman!" the manager said.

"No," I replied. Oliveros's work has no similarity in any respect to that of Derbyshire's.

This is an off-the-cuff exchange between me and a BBC studio manager who is not an expert in experimental music. There is no reason why he should be one, but I repeat the story to illustrate the continual elision of women's work from the specific into the general. I mention also my activities with the media to make a point of networks. That I could gain access to national media in this way is the result of overlapping networks: I bring my knowledge of Oliveros, gained from studying her and speaking to her in an academic capacity, into a second network of journalistic activity, enacted because of my years as a critic. Yet I am also

¹⁷ As noted earlier, it was Derbyshire's realisation of the *Doctor Who* theme tune that propelled her to a lasting cult status among enthusiasts of electronic music.

aware that my proactivity was sparked less from a sense of news-worthiness as the realisation that if I did not do this, then no one else would. Oliveros will remain a hugely significant artist within the small field of experimental and new music but outside this field – even – she risks being unrecorded. My action was a practical demonstration of the urgent necessity of attending to the media record, of documenting work outside the usual and more familiar networks that it might otherwise reside in. The demonstration of precariousness is demonstrated, too, by the fact that my Oliveros item, scheduled for broadcast on 9 December, was postponed due to the deaths of ‘more famous’ people such as the US astronaut John Glenn, the British rock musician Greg Lake, and a BBC weatherman. The Oliveros segment was finally broadcast on 23 December 2016, in a programme which also featured Zsa Zsa Gabor and Rabbi Lionel Blue.¹⁸

Transference, networks, friendship

There is another aspect in which I am present in my interviews and this is as a participant who is enmeshed in a transferential and countertransferential situation in which my past associations and emotional currents are brought into the present. Oral historian Michael Roper points to the ubiquity of transference. He cites the psychoanalyst Karl Figlio (1988) in pointing out that “when interviewing we are in a transference situation, whether we like it or not. [...] There is no relationship without transference [...]”. (Roper 2003: 21) Psychoanalytic theories of transference, from both Freudian and Kleinian perspectives, and how they apply to this research will be developed in Chapter Two. For the moment, I mark the importance of these transferential currents. While the interviews do not in any way constitute psychoanalytic practice (they are not therapeutic), my interpretation of my practice is informed by psychoanalytic theory. As Roper writes: “Transference occurs in all interviews, the interview being by definition, a relationship. Once this is recognised, the question then becomes how the unconscious processes operating within an interview can best be recognised and understood” (ibid.).

¹⁸ BBC Radio 4, *Last Word*, 23 December 2016: <http://www.bbc.co.uk/programmes/b085bfyq> (Last accessed 26 April 2018)

The boundaries of the personal relationships created by interviews and afterwards are also porous, especially during momentous occasions. In unsettled times, speech might become more emotional, direct, reflective. This is something I have experienced most clearly in email correspondence with Lockwood. Following on from the EU Referendum in June 2016, Lockwood and I had fallen into the habit of writing consolation emails to one another even as we communicated about clarifications relating to my editing of her interview. She wrote to commiserate about the UK's vote to leave the EU; I replied with a description of the powerful impact that Oliveros's *Tuning Meditation* had had on its participant-audience at the Deep Minimalism festival on its closing day, Sunday, 26 June. Lockwood responded, saying that she had been moved by my account. Later that summer, we discussed the toxic US presidential election. After its shock result, I wrote to Lockwood (11 November 2016), attaching a PDF of an article I had written for the latest issue of *The Wire* on Radigue (Gray 2016b) and her explicated work of transition, the *Trilogie de la mort*, inviting Lockwood to reflect on Donald Trump within the Buddhist teaching of impermanence. Lockwood replied positively. On 25 November, I sent my condolences to Lockwood (and her partner, Ruth Anderson) following the death of Oliveros: they had been close friends. The next day, Lockwood emailed in reply:

Thank you, thoughtful friend. We [Anderson and Lockwood] too have only just heard and the Facebook site seems to have crashed, not surprisingly. We're sort of in shock still – it's a blow to the heart. I'm so glad you had that time to talk with her. How deep her influence runs! How much she has indeed changed the world and we are so very glad that she lived long enough to hear from so many of us what she has done for our ears and minds and bodies. (Lockwood 2016f)

In these many interactions, I see, in the terms of Bruno Latour's actor-network-theory, the "trails of association" (Latour 2005: 5), the traces of old networks and the beginnings of new ones.

Writing a feminist history

Music – as with all art – can only ever offer an uncertain career to its practitioners. To practise as an artist requires resources of time and space, of financial security that takes care of living expenses. Art cannot be created without its creators having access to a psychic and physical space in which they can meaningfully think and begin to develop work. This last statement is a given and it applies to all artists, not only female ones. However, it is essential to bear in mind that access to these resources – of time, financial and material security, of supporting networks and institutions – are not allocated equally between genders, ethnicities or economic groups. Artists who struggle with this uneven access run the risk of slipping through gaps of public recognition, of falling off – or never getting on, in the first place – the record that is provided through a historiography consisting of encyclopaedias and dictionaries, by gallery shows and concert programmes, by academic and art-historical recognition.

Beyer and Amacher are not historical anomalies and nor is this issue confined to music. In the case of artists who are developing new areas of work, the risk is arguably greater. Architectural historian Despina Stratigakos suggests that women, as a group and for a variety of intersecting reasons, are less likely to catalogue their work and, in turn, archivists and editors are less likely to preserve and promote this work. She compares the resulting gaps in the historical archive as a contemporary and continuous equivalent of the “acts of erasure” practised in the classical world, in which people who had fallen from favour were eradicated from the historical record:

Many centuries later, such acts of erasure would become known as *damnatio memoriae*, after the ancient Roman judgment passed on a person who was condemned not to be remembered. It was a dishonorable fate, which the Roman Senate reserved for traitors and tyrants. Today, in modern architectural history, it’s simply what we do to women architects. (Stratigakos 2016a)

Stratigakos makes a polemical, but pertinent, point that needs reiteration. While this research is focused on the compositional work by a selection of women composers, the lack of female representation in the arts is replicated in the professions and

elsewhere. To this, there is a historic element: it involves, as Stratigakos rightly notes, the materials that contribute to the historical record and the nature of that record's compilers. There is a social element: it involves what we might term as the conditions of possibility: a functioning financial and social base from which an artist can create a space of practice. There is a hierarchical element: it involves an examination of the systems – educational, orchestral and otherwise – in which an artist might meaningfully work. Stratigakos gives an extreme example of how limited representation can lead to a further diminishment in how the very existence of one female architect, Thekla Schild (1890-1991), was doubted because there was no internet representation of her work (op. cit.). There is also a baseline element of recognition in the withholding of any external validation of female labour. To not notice the operation of these is to exercise a latter-day sentence of *damnatio*. The positions of artists working in marginal areas are, despite their ingenuity and creativity, especially precarious. If we are to define patriarchy as a political structure that ascribes fixed gender rules, then we must accept that these structures are immanent in such other spheres as work, valorisation and the social. Moreover, just because an organisation or grouping either describes itself or its methods as revolutionary or, in some way, emancipatory of previous strictures, it does not follow that its activities and attitudes are similarly revolutionary or emancipatory. There are plenty of reasons as to why the women mentioned so far have not been written into a historiographical memory and not one of them has to do with the quality of their work or the innovation of their compositional method.

Even Nochlin (2015a), whose 1971 essay is a key moment in the articulation of the reasons why women artists have not been validated in history, misses this. Revisiting her original text after thirty years in 2006, Nochlin identifies how new currents within art – from feminist, African-American, post-colonial and queer sources – has invigorated the art scene. She praises the multimedia nature of work made by contemporary artists, work that resists an easy categorization. However, she does not mention that genre-defying work increases the risk of not being seen – or in this case – heard. (Nochlin 2015c: 318)

This unevenness is often forgotten in the debates that periodically arise about the lack of female equivalents to Beethoven, da Vinci, and so on.¹⁹ In 1988, the Guerrilla Girls, an all-female collective, produced an acerbic poster titled *The Advantages of Being a Woman Artist*.²⁰ The poster consists of thirteen statements, each one an “advantage” for female artists. Among the advantages identified are: “Working without the pressure of success”; “Having an escape from the art world in your 4 free-lance jobs”; “Being included in revised versions of art history”; and “Not having to undergo the embarrassment of being called a genius”. The poster was termed a “public service message from... the conscience of the art world”. Certainly, the composers I interview or cite have first-hand knowledge of what the Guerrilla Girls speak of. Beyer falls into the category of inclusion in “revised versions” of music history; so too, does Fullman. She is aware of her omission from Kyle Gann’s *American Music in the Twentieth Century* (1997), despite, by the mid-1990s, having produced a solid body of work. Gann has since rectified the omission on his website, but his *post hoc* action reinforces the Guerrilla Girls’s observation about women being written into the record only via revisionist additions.²¹

Pauline Oliveros and Linda Nochlin: conditions for greatness

Thanks to the work and activism of art curators, art historians and activists such as Nochlin (2015), Lippard (1976), and Parker and Pollock (1995), as well as the Guerrilla Girls, the visual art world has been quicker to frame feminist-inflected questions that directly address the manifold manifestations of hegemonic power. Musicology has lagged behind in producing its own analysis of the same problem and any subsequent calls for amelioratory action. However, both media (visual art and music) are joined in their shared disparity between female artists and the appraisal of what might be termed “greatness” (with all its implied mutability and subjectivity), which is rooted in the convolutions of the prevalent hegemony.

¹⁹ A recent example of this occurred – “Where’s the Female Beethoven?” – in the *Radio Times Magazine* in 2015. See: <http://www.hannahkendall.co.uk/wheres-female-beethoven-radio-times-magazine-article-featuring-hannah> (Last accessed 26 April 2018)

²⁰ The Guerrilla Girls group was founded in 1985 as a response to the failure of earlier feminist attempts to have any significant and lasting impact in promoting women’s work in the art world.

²¹ See: http://www.kylegann.com/womens_music.html (Last accessed 27 April 2018)

My research notes the circumstances of economic (in)security provided to the composers that I focus on: some have been able to compose because of the financial security provided by academic tenure (Lockwood and, for a period, Oliveros); by employment (La Barbara), by part-time jobs coupled with institutional support (Fullman). Radigue, unpaid as a *stagiaire* at the Studio d'Essai in Paris, undertook much of her early work whilst juggling childcare and was later helped by the financial support of her former husband, the artist Arman. This support continued after their separation in the late 1960s. It was only comparatively late in her career that she began to receive commissions from civic/governmental structures.

Oliveros's "And Don't Call Them 'Lady' Composers" is a crucial text in articulating the absence of 'great' female artists:

Why have there been no 'great' women composers? The question is often asked. The answer is no mystery. In the past, talent, education, ability, interests, motivation were irrelevant because being female was a unique qualification for domestic work and for continual obedience to and dependence upon men... This is no less true today. (Oliveros 2015a: 47)

Oliveros notes that women composers need to be "super-excellent" to succeed in a field skewed by sexism. Nochlin's own polemic provides a theoretical parallel to the problem identified by Oliveros, and, while this essay addresses visual art (as opposed to composition), her argument is nevertheless transferable to cover the broader field of female-created artwork, and, indeed, contemporary discourses relating to race and the paucity of representation of black and mixed-ethnic artists in the artistic field.

This absence is the theme of Nochlin's equally important essay in terms of its application of feminist theory to "the ideological basis of the various intellectual or scholarly disciplines". (Nochlin 2015a: 42) Nochlin pinpoints this inequality of access to resources as a key issue in the fact that there are no great women artists. One might answer her question in this way: there are no great women artists because they have not had the chance to become great. Indeed, the fact that the question can be posed at all points to a "subjective distortion" which presupposes that the given male power and hegemony constitutes a kind of natural order. (Ibid.) Crucially, Nochlin does not point to the personalities of the artists as that which marks them out for the extraordinary. She robustly dismisses the:

apparently miraculous, non-determined and a-social nature of artistic achievement” in which, during the 19th century at least, the artist faces “the slings and arrows of social opprobrium like any Christian martyr, and ultimately succeeds against all odds – generally, alas, after his death – because from deep within himself radiates that mysterious, holy effulgence: Genius. (Nochlin 2015a: 49-50)

Instead, she stresses that the practice, the craft, of art is socially embedded and circumscribed, writing that “art is not a free, autonomous activity of a super-endowed individual”, but rather something that is socially and culturally mediated.

Oliveros herself made an apposite entry into the debate of the location of the “great” women composers in an article headed “Divisions Underground” that was printed in the *Numus West* journal in 1973. (Oliveros 2015: 97)²² Oliveros provides its title – “Why Haven’t Women Composed Great Music?” – and its subtitle: “Why do men continue to ask stupid questions?” The piece is illustrated with a bust of Beethoven that has been ‘feminised’ through two roughly applied gender signifiers: a smear of lipstick and a bonnet set at a jaunty angle. Arguably, Oliveros answers her two questions in the first 271 words of her article, which starts by listing synonyms for the word *woman* (or the condition of being a woman).²³ The list starts with “Hooker, lady woman, queen”, and goes through “distaff, the weaker sex, weaker vessel, frow”, before ending, “starlet, peeress, dyke”. (Oliveros 2015: 98) This is a hugely powerful piece of writing. Through the means of the performative listing/utterance of insults, Oliveros brings women to the centre stage: as each noun sounds, the presence of that-which-is-a-woman becomes louder, more audible. It is not without significance that Oliveros ends with “dyke”: it is both a coming out on her part as well as a *détournement*, in which the power of abuse is radically reclaimed and rerouted.

Pauline Oliveros and Alison Knowles: the power of alternative histories

What can alternative history reveal to us about real history? Used correctly, such parallel histories – one might style them in the category of a history from below

²² “Divisions Underground” was a response to an article by Judith Rosen and Grace Rubin-Rabson titled “Why Haven’t Women Become Great Composers?” for the *High Fidelity/Musical America* monthly magazine. (No. 23, February 1973)

²³ Martha Mockus has counted them. (Mockus 2008: 3)

– are powerful tools to identify gaps in the record, to highlight the contingency of what could have been. The alternative history parses that-which-has-happened. A feminist, psychoanalytic, sound-orientated alternative history sees and hears the women who are unseen and unsounding in a hegemonic historiography. It exposes the flow of social, cultural and political power. It can also point to the absence of female representation in the power structures of music and visual art, something which Oliveros, working with the artist Alison Knowles, did via five images produced in the mid 1970s for what they called their *Postcard Theater*.



Image 3: “*Composersess Pauline Oliveros poses in her garden.*” A papier-mâché bust of Beethoven is in the foliage on the right-hand side.

Pauline Oliveros and Alison Knowles. 1974. *Beethoven Was a Lesbian*, one of five cards in their *Postcard Theater* series.

© The artists

These postcards – Oliveros referred to them as a larger part of her “theater of substitution²⁴ – present an alternative version of history in which women do matter.²⁵ Each card referenced a famous male composer; each postcard traded in

²⁴ Linda M. Montano, personal communication.

²⁵ Jennifer Walshe’s use of alternative history as a compositional tool to focus attention on real history is a conscious echo of Oliveros’s tactic. I discuss this in Chapter Six.

misogynistic insults. *Beethoven Was a Lesbian* (above) is one in a series of the five acts. This card shows “composeress Pauline Oliveros” sitting in her garden reading a book. Deliberately chosen, the word “composeress” pinpoints Oliveros’s objections to the feminising of nouns to signal a separate and diminished female status, the theme that Oliveros expounds in “And Don’t Call Them ‘Lady’ Composers” (2015a). The book she is reading is *All Hallows’ Eve* by Charles Williams, a 1945 novel in which two women roam an unfamiliar London. They’re dead, they just don’t know it. Oliveros is frowning and so, half-hidden in the dense foliage, is a papier-mâché bust of Ludwig van Beethoven. You need to look closely to see him, but he is there, brooding away in the bush, the epitome of the struggling hero of a composer.²⁶

Oliveros had no animus against Beethoven, but she had long identified him as a trope for all that (male) genius was meant to be and as what females could never aspire to – here again, we think of Beyer’s feminine “diffuse” or emasculating “intellectual” music.²⁷ Beethoven was not the only representative of the heroic male composers who was gleefully feminised by Oliveros and Knowles, who layer on the weaponised vocabulary of gendered (and racist) denigration. Mozart is turned into a “black Irish Washerwoman”; Chopin is domesticated with “dishpan hands”; Bach is “a mother”; and Brahms is a “two-penny harlot”. (See p. 81)

This last postcard rails against a demure femininity. Its split image depicts, firstly, a young Oliveros playing out an action game (she has a toy dagger at her

²⁶ In 1944 the composer and critic Virgil Thomson took aim at the “masterpiece cult” in classical music, identifying Beethoven as a composer who consciously, and, perhaps, cynically, made the compositional masterpieces that created the “oratory” of the medium. (Thomson 2014: 552)

²⁷ I am indebted to Stuart Dempster, a member of Oliveros’s Deep Listening Band, for pointing out to me how far back Oliveros’s ludic engagement with Beethoven extends. This was a remark he made to me on Facebook after he had read my online essay (on *The Wire* website) on Oliveros and Knowles’ postcards: “I will never forget ‘encountering’ that Beethoven bust. It was in PO’s *Pieces of Eight* that I was fortunate to play. That bust was (and, I hope, is) nearly 4 feet tall. It had [two] flashing lights [for its eyes] and took two people manoeuvring it down the aisle of the San Francisco Tape Music Center. There also were two people with collection plates as well as one playing a large packing crate working with a Railway Express huge scale. Eight of us instrumentalists had also a ‘Big Ben’ type alarm clocks set to go off at a certain time in the piece and various other additional toys and so on. There was a slide out of focus on the wall behind us that gradually over the course of the piece came into focus and it was – who else – Beethoven. In 1964 I had only known Pauline for 9 years, but already what a nine years that had been! I was so ‘green’ then, and how was I to know how we would share so much over the next five decades! I have been so blessed...” (Dempster 2016)

belt); and secondly, a holiday snap of Knowles as a scowling toddler. Beethoven was not a lesbian, of course, but he could have been in a parallel universe. It is the unwritten history of women's endeavours, this non-history that Oliveros and Knowles expose: by writing fake history you say something about reality. Both artists, in separate ways, were attuned to the lack of female representation in the arts and these cards were a way of feminising, of queering, compositional space and compositional possibility. For Knowles, the postcards are a link to *Womens Work* (1975), the text-score collaboration that she made with Lockwood soon after.²⁸ For Oliveros, this listening – a form of under-listening – was codified into her far-reaching practice of Deep Listening.

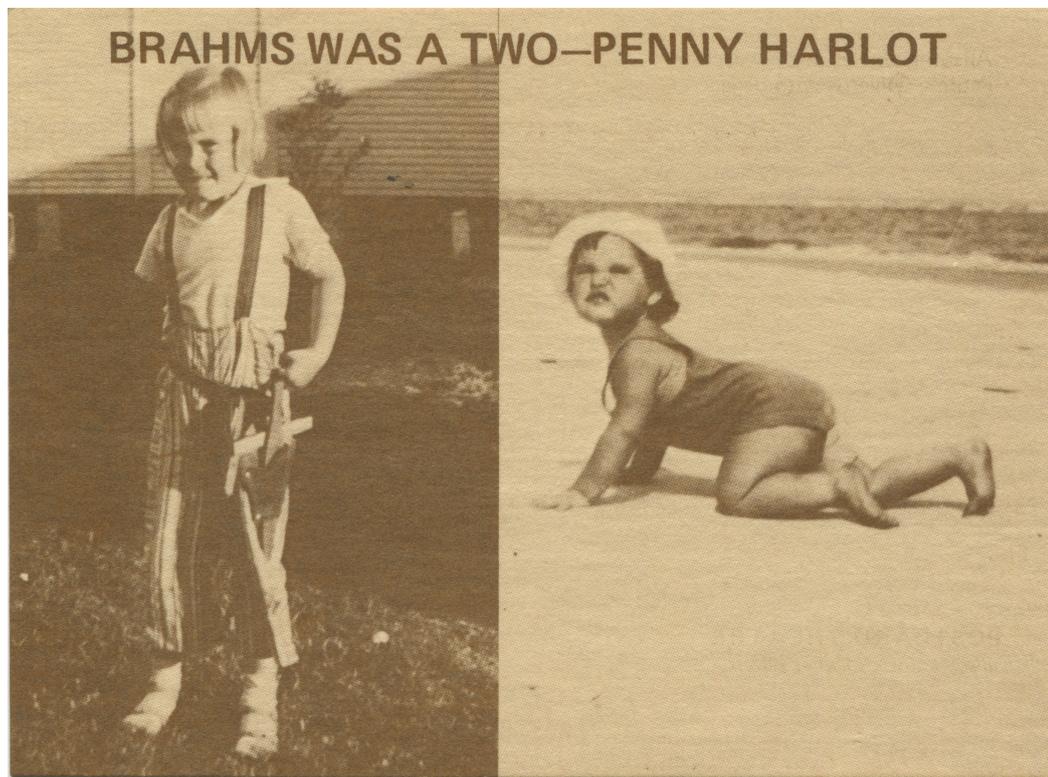


Image 4: “Alison Knowles at the beach/ Pauline Oliveros with dagger.”

Pauline Oliveros and Alison Knowles. 1974. *Brahms Was a Two-Penny Harlot*, one of five cards in their *Postcard Theater* series.

© The artists

²⁸ The second issue of *Womens Work* (1978) is a fold-out sheet printed with text scores.

Annea Lockwood and Alison Knowles: *Womens Work*

This feminist-inspired discontent at any circumscription of female creativity was being reflected directly in compositional methods, too. Lockwood, working in the mid-1970s with Knowles, expressed impatience with how female creativity was framed in the period immediately following Oliveros and Nochlin's articles. A mixture of humour, anger and a reclaimed right to creativity, similar to that found in the *Postcard Theater*, suffuses *Womens Work*, the two-issue collection of female-authored, Fluxus-inspired scores compiled and edited by Lockwood and Knowles. *Womens Work* takes up the challenge issued earlier by Oliveros and Nochlin to redefine women's work, to ask new questions about what constitute a valid creative life.

One example of this is in the first issue of *Womens Work*. Bici Forbes's score for the *Black Thumb Summer Institute of Human Relations Extension Courses* (1974) frames feminist action in the guise of a college programme. Two of the courses offered in Forbes' fictional Women's Studies (Honors Program) are Elocution ("On a cloudy day, scream, until rain falls. On a foggy day, scream, until you have dispersed the fog"); and Maternity Leave: "Wash the diapers in a mountain brook and hang them on a tree to dry. Oil the baby's head and comb the hair like a Japanese sand garden."

Lockwood's poetic, instructional score for a *Piano Burning* (one of three *Piano Transplants*) is more dramatic:

<i>Set piano upright in an open space</i>	<i>staple balloons</i>
<i>all over</i>	
<i>with lid closed</i>	
<i>staple balloons all over</i>	
<i>spill a very little lighter fluid here</i>	
<i>and light</i>	<i>play whatever pleases</i>
<i>you</i>	<i>for as long as</i>
<i>you can</i>	

Lockwood's score can be read as an assault on the body of her (chosen) instrument (she had trained as a concert pianist) as much as for the orchestral and compositional hegemony that the piano, possibly the most socially scripted instrument of all, represents. Forbes' sardonic score, on the other hand, takes the mundane – the women's work – and validates it by means of turning it in to an artwork.²⁹ It is noticeable that Forbes' imagery – sand gardens, mountain streams – references the same images of a Zen-like tranquillity that had previously attracted John Cage and many artists within the abstract expressionists.³⁰

Female representation in experimental music literature

The neglect of women composers within surveys of the classical music that precedes so much contemporary classical and experimental music is less acute than it once was, thanks to historical studies by such musicologists as Marcia J. Citron (1993), Sophie Fuller (1994), Karin Pendle (2001), and Anna Beer (2016). Following the post-war rise in feminist methodologies, the application of gender theory to women composers and composition has been led by McClary (1989, 1991), Jill Halstead (1997), and Elizabeth Hinkle-Turner (2006). Given that the oral, face-to-face encounter is a prime form of communication, it is important to note in relation to this research that there have also been several books of interviews with musicians in recent years. The principal ones are by Cole Gagne and Tracy Caras (1982), Gagne (1993), Tara Rodgers (2010), Cathy Lane & Angus Carlyle (2013), and Norma Beecroft (2016). There is a certain amount of crossover between these books and my research in terms only of certain artists.³¹ However, none of these interview books employ any of my methodological tools to analyse their data: the volumes by Gagne and Caras, Gagne, and Rodgers are broadly historical, while Lane & Carlyle focus on the widely

²⁹ See, for example, Laura Vorachek (2000), who notes that piano proficiency was an expected component of the middle-class girl's education in the nineteenth century. The "aura" of the piano as a signifier for female education and the validation of musical skill lasted well into the mid-twentieth century. Vorachek speculates that the middle-class female body, and most importantly, its desire, is transposed onto that of the piano itself. This line of thought opens a rich approach to Lockwood's various piano actions, which include burnings, drownings and plantings.

³⁰ Cage and his circle took a close interest in Japanese Zen Buddhist practice. I have been struck at how the practice of, or a close kinship with, Tibetan Buddhism is a feature of all the composers I concentrate on. I will speculate at a later point in my research on what Tibetan theories of listening (and of being heard) signify to the practice of these composers.

³¹ Gagne's (1993) *Soundpieces 2* contains eighteen interviews with artists, including Oliveros. Lane & Carlyle's (2013) volume interviews eighteen artists: Lockwood is one of them.

differing practices of contemporary field recording and the positions that their narrators take up within their work. Beecroft's book of twenty-three interviews conducted in 1977 with such leading – male –experimental musicians as Pierre Schaeffer, Iannis Xenakis and Karlheinz Stockhausen limits itself to the relationship between technology and composition.

All these texts are valuable additions, but thus far, they focus on analyses of historical trends and interpretations, rather than new modes of music-making, and the reasons why women might be attracted to such modes. The clash of gender, education strategies and technologically-based music has been considered by Lucy Green (1997), Hannah Bosma (2003, 2013), Andra McCartney and Ellen Waterman (2006), Tara Rodgers (2015) and Cathy Lane (2016a, 2016b). Presenting their ethnographical MusDig research, Georgina Born and Kyle Devine (2016) rightfully draw attention to the interplay of education and gender in the uptake of music technology studies. These, too, are hugely important studies that have great resonance in the study of women musicians and composers, both now and in the future. Despite these, the neglect of women within the body of writing on experimental music itself remains deeply embedded. With the exception of Tom Johnson's (1989) contemporaneous survey of New York's new music between 1972-82, a collection of writings that scans a broad range of activity, women barely feature in any mainstream canonical surveys of experimental music. Where women are mentioned in the literature pertaining to experimental music they are as: counterparts to heroic male composer-pioneers (Gann 1997);³² girlfriends, wives and fellow-travellers (Tilbury 2008); or absent altogether (Nyman 1974). Nyman, whose *Experimental Music* remains one of the key documentaries of the new music scene between the mid-1950-70s, especially in relation to events based in London, writes of La Monte Young but not his collaborator (and wife) Marian Zazeela, and of video artist Nam June Paik more than cellist Charlotte Moorman. Indeed, when Nyman writes of the "unclassifiable performances of the sensational duo of Paik and [...] Moorman" (Nyman 1974: 74), he recounts some of the "theatrical" (ibid) circumstances of so many of the pair's events, including Moorman's arrest in New York in 1967 for public indecency in playing her

³² "If Cage could be said to have a female counterpart, it would have to be Pauline Oliveros..." (Gann 1997: 161)

cello bare-breasted in a performance of Paik's *Opéra Sextronique*.³³ For Nyman, Paik is clearly the author, the agent, of the music, and Moorman his channel. That Moorman (alone) was subsequently convicted of indecency by a New York court is not mentioned and seems to have no bearing on the retelling of his story.

Scratch Orchestra women: "gracile", "voluptuary", "offbeat" and forgettable

In John Tilbury's (2008) 1,069-page biography of composer Cornelius Cardew, the women who do appear in it are dismissed. Tilbury's adjectival use sees to that. He replicates an uncritical and casual sexism in his short section on women within the Scratch Orchestra, an organisation that, by the application of its revolutionary zeal, otherwise eschewed the conventional orchestral hierarchy.³⁴

This is illustrative of what Nochlin identifies as "subjective distortion" brought about by an unquestioned acceptance of the status quo as the representation of normality. (Nochlin 2015a: 42) Thus, Tilbury describes Catherine Williams as "a gracile young woman, a kind of precursor of the pop singer Kate Bush, although [she] did not actually sing" (Tilbury: 2008: 448); Raha Tavallali, a "young Iranian art student, a genuine voluptuary, whose beauty was a violent presence at many gatherings" (op. cit.: 449); and Daphne Simmons, art student, "delightfully offbeat; she and her friends cooked quirky meals which they prepared in an atmosphere of hilarity, and with a tinge of hysteria". (Ibid.) Judith Euren is "in thrall to her lover" (ibid.), and one woman is simply forgettable: "Nobody can recall much about Fran Green, except that she wore green (boots)." (Op. cit.: 451) Stella Cardew, the composer's second wife, is: "Quiet, painterly, motherly – because she invariably had her children with her." (Op. cit.: 450)

These are examples of a reductionist writing about women who lack agency or importance. They are different in tone and concern to Gann's (2009) description of Amacher, which was discussed earlier in this chapter. Tilbury recognises that Cardew was a complex, often difficult, man. And yet Tilbury is caught within an overarching

³³ Rothfuss covers this incident in detail and with greater critical acuity than Nyman. (Rothfuss 2014)

³⁴ The composers Cardew, Michael Parsons and Howard Skempton founded the Scratch Orchestra in 1969. Anyone could join, regardless of musical ability. The orchestra was active until approximately 1974.

net of replicated sexism, for his adjectives betray a uniformly dismissive tone of the women he writes of. A heroic canon demands a hero. Tilbury, like Nyman, privileges his protagonist's story to the point of blindness to how successfully Cardew dominated the experimental music environment in the UK in the 1960s/70s. Domination can take many forms: these can include success in the competition for scarce resources; the energy and inclination needed to run groups; the time and the space to write, rehearse and to perform. In the hyper-politicised counter-cultural seepage of this period, it was, however, hard for others to establish their own stages on which to work. Cardew's success made it difficult for others to act. Lockwood, active in London at the same time as Cardew and occupying many overlapping circles, left the UK for the US and to carve out her own feminist-inspired space to work. Tellingly, she says of the Scratch Orchestra and the artists within it: "[T]here really wasn't room for anyone else in the scene by the time the Scratch Orchestra was well under way, and Cardew's career, and various others..." (Marshall 2016a: 00:01:10) She then describes her relationship to the orchestra, to Cardew, his working methods and his power in an indirect, but telling, way:

We [Lockwood and her friend, the artist Hugh Davies] went to either the first or one of the first meetings of the Scratch Orchestra to see what was going on and if we wanted to be involved, and it just didn't look like my sort of thing. The communitarian – I'm not a good communitarian, I suspect, and that aspect of it didn't draw me at all, and nor am I a good follower." (Marshall 2016a: 00:02:00. My emphasis)

Just because an organisation is revolutionary, it does not follow that its procedures, internal conduct, and attitudes of its members are similarly revolutionary. We might describe the field of experimental music as revolutionary/not-revolutionary in the sense that, whatever else it is, it also contains the dominant hierarchies within it. We could use Cixous's formulation – *écriture féminine* – to describe the revolutionary content of this field and add our own – *écriture masculin* – to describe the non-revolutionary party of it.

While current scholarship is making some progress in marking the contributions of female composers, writers are still not alert to the circumstances of the compositional work. At times, the women are barely noticed. *Downtown Music*, Kyle Gann's 2006 collection of interviews drawn from his columns for New

York's weekly magazine *Village Voice*, includes only three female interviewees. These are Yoko Ono, whom he credits with launching the Downtown music scene in 1960, with a La Monte Young and Richard Maxfield concert held at her loft; musicologist Rose Rosengard Subotnick; and composer Maria de Alvear. This small trio makes his declaration – “I’ve focused more on women composers than any critic I’m aware of...” (Gann 2006: 98)³⁵ – unexpected. Oliveros makes an appearance in his preface, alongside Ives, Henry Cowell, Harry Partch, Cage and Conlon Nancarrow, as a “fount of American experimentalism”. (Ibid: xvi) Laurie Spiegel, the only experimental composer to date to have their music sent into outer space,³⁶ is absent; so, too are Éliane Radigue, Joan La Barbara and Ellen Fullman; Lockwood is referenced in passing. Gann’s “evacuation” (to echo Born’s 2016 description of the failure of musicology to notice women) is not limited to this book. In 2009, he is able to write on his blog: “I feel bad that an upcoming minimalism conference co-directed by myself, of all people, has been criticized for its absence of attention to woman composers. I don’t quite know how to go about addressing the collective guilt of the musicological field. [...] As a critic and musicologist, I’ve done just about everything I could think of to champion women composers.” (Gann 2009a: n. p.)

While Gottschalk’s 2016 publication has a conscious overlap with Nyman’s volume in terms of their shared chronology, she is nevertheless conscious of a wider gender participation in experimental music. She brings the dramatis personae of experimental music into contemporary focus, broadening considerably the range of sonic material and artists from the Cardew-dominated circles that people both editions of Nyman’s volume (Nyman 1974, 1999). Gottschalk includes, for example, not only Amacher, Oliveros, La Barbara, Lockwood and Radigue, but also younger sound artists,

³⁵ Gann’s chapter about de Alvear is titled: “A difficult woman: a cosmic piano concerto from the outspoken composer of *vagina*.” I would suggest that the difficulty lies less in de Alvear’s output than the way that a hegemonic structure has difficulty in accepting contextualising women composers.

³⁶ Spiegel’s “Harmonices Mundi”, a realisation of orbital calculations made by the seventeenth-century astronomer Johannes Kepler, is on a golden record, a copy of which is attached to the two Voyager spaceships. Voyager 1 was launched in 1977. According to NASA data, Voyager 1 (and, with it, Spiegel’s music) is now in interstellar space, more than 13.1 billion miles from Earth at time of writing. <https://voyager.jpl.nasa.gov/mission/status/> (Last assessed 26 April 2018)

performers and composers: Jennifer Walshe (b. 1974), Miya Masaoka (b. 1958) and violinist Angharad Davies are three of them. Gottschalk writes with the convenience of fast contemporary communications and consequently has access to a greater range of material than Nyman originally did. Gottschalk is thus able not only to note or to archive the many composers that feature in her book, but to facilitate their sounding out in future years. Listing for her is a strategy that empowers the possibility, for a readership yet to come, of a future listening. This range of access was not available to Nyman at the point that he wrote his book. This limited compositional soundscape is something Nyman himself acknowledges in his preface to the second edition to *Experimental Music*, even as he states a clear reluctance to challenge the limits that he accepted:

“The original bibliography shows how scrappy and limited the written sources were in the early 1970s. And some composers – for instance, Meredith Monk, Pauline Oliveros, James Jenney [sic – Tenney] and Charlemagne Palestine – were *invisible and inaudible* [my italics] to a writer/performer whose take on his subject was completely London-based. But strangely enough, were I writing *Experimental Music: Cage and Beyond* today, I would *not* do it any differently, though it would not be possible *not* to do it differently.” (Nyman 1999: xviii)

The need for an expanded historiography

To write a history of anything is to locate one’s self and one’s methodologies within contemporaneous history. We look at the past even as we are bound by it, by what has gone before, its culture and its mores. This is why critiques of revolutionary music – in this case, experimental music – run the danger of being written about in a counterrevolutionary manner. To step outside a historical current requires a self-reflexivity that is not always seen, or if glimpsed, it is untaken. Rodgers (2015) writes on how “gender informs the historiography of electronic musics and synthesizer technologies” in a paper that notes the double-bind – of gender and marginal music – that ties its female participants and has hindered an accurate critique of their work. She quotes Hannah Bosma’s observation that “electronic music is... a culmination of two male domains, composition and technology”. (Bosma 2006, cited in Rodgers 2015: 6-7) The art theorist, artist and policy advisor Suzanne van Rosenberg (2017: 1, 38) argues this situation can only be ameliorated by nothing less than a

restructuring of the art canon. The work of this, she suggests, can be started by the adoption of an expanding collaborative practices among feminist stakeholders, this ultimately leading to a practice of transdisciplinarity that has the effect of balancing out the competing demands of separated disciplines.

Music, technology and gender

I contend that women composers have built their homes within the more radical reaches of experimental music because they have been excluded from both the mainstream musical world as well as the main current of the experimental world. I will show how this reality has, in turn, helped foster a radical mode of expression that ranges from the sonification of the natural world (Lockwood), to invention (Fullman), to the articulation of new sound worlds (Radigue).³⁷ While McClary (1991), Hutton (2000), Rodgers (2010, 2015), Gottschalk (2016) and Frances Morgan (2017b) have considered women's involvement in technological outputs, their texts have not focussed on why the women that they focus on were drawn to the edges of experimental music in the first place. This is an issue that I address: I speculate that women inhabited these edges because the centre was hard to access and because creativity found a way to live at the margins.

The sound of silence: Johanna Beyer, Maryanne Amacher,
Delia Derbyshire

The silences of the unheard women composers are loud, but there are signs that they are beginning to be heard. Joan Rothfuss (2014), in her biography of the avant-garde cellist Charlotte Moorman, notes how the performance of a particular mode of abject femininity both reinforces a social sexism but also allowed it to be negotiated by a skilled player. However, Rothfuss's book comes not from the terrain of musicology but of art history: her own formation is as an art historian who contextualises visual, rather than the sonic, signs. Rothfuss builds on the feminist analyses of visual art that curators and scholars – from Lucy Lippard (1976) to Parker and Pollock (1995) – have

³⁷ For example, the stagecraft of Laurie Anderson or Laurie Spiegel's compositional-technological interfaces.

earlier championed. This exegesis has not been replicated with reference to the sound world and it is something that I undertake to do in this project.

Amending the record: Beyer, Amacher, Derbyshire

In the case of Beyer, there have been recent attempts to address her legacy, stimulated in part by the long-lasting effect of *New Music for Electronic and Recorded Media: Women in Electronic Music – 1977*, an LP (later CD) compiled by composer and sound artist Charles Amirkhanian. Beyer – now – has an entry (by composer Larry Polansky) in the *New Grove Dictionary of Music and Musicians*³⁸ (Stanley 2001), while Beal’s short biography (2015) represents the first, scholarly examination of Beyer’s work. In terms of Amacher’s legacy, a group of curators, composers and musicologists, working under the umbrella term of Supreme Connections, are promoting seminars and events³⁹ in order to secure a posthumous existence for her work.⁴⁰ And, in the UK, it now seems hopeful that studies on Derbyshire’s compositions and methods will pass into hands more scholarly than they have hitherto been.⁴¹

Putting on the map: Radigue, Oliveros, Lockwood, La Barbara, Fullman

Of the composers that I focus on, all have had a more limited treatment in terms of current literature, all of which tends to focus on aspects of their work. For example, Fullman is the subject of a short chapter in Alvin Lucier’s *Music 109* (2012), which focuses on the technical aspects of her Long String Instrument. Oliveros’s “lesbian musicality” is defined and discussed by Mockus (2008). Gann discusses sympathetically how, by adding “intuition” (a traditional feminine attribute), “women’s values and contemplation” into her work, Oliveros’s music makes “a radical attempt to correct a musical world badly off balance”. (Gann 1997: 163) He seems not to notice the problematic area created by his assumption of ‘feminine’

³⁸ She did not in 1988, when John Rockwell wrote in the *New York Times* of her absence from the *New Grove Dictionary of American Musicians*. (Beal 2015: 91)

³⁹ Examples include Tate Modern, London (31 July-5 August 2012), the De Stedelijk Museum, Amsterdam (24-26 February 2017), and the daadgalerie/Berliner Künstler-Programm (14 July-25 August 2017).

⁴⁰ In Amacher’s unrealised opera *Intelligent Life*, Supreme Connections was the title she gave to an imagined company.

⁴¹ Derbyshire’s archive is at the University of Manchester. Jo Hutton is currently reconstructing Derbyshire scores as part of her doctoral research at the University of Surrey.

attributes. Lockwood is the subject of broader interviews (Rodgers 2010; Lane & Carlyle 2013), which nevertheless focus on methods of work.

The greatest gap in the field lies in the study of Radigue, Fullman, and La Barbara, about whom there is very little scholarly writing or research. This is slowly being rectified. There has been, very recently, work on La Barbara, and particularly her method of extended vocalising (Bell 2016). An international colloquy on Radigue, held at the Sorbonne in 2016, has identified certain areas of her work in which future scholarship is anticipated.⁴² The nearest attempt to date is Rodgers' *Pink Noises* (2010). While a valuable resource, it takes a dilute range of musician/composers as its narrators: it is not a book concentrating on the pioneers of experimental music. None of the texts mentioned apply any of my methodologies to their subjects and none attempt to produce a life and work histories.

Expanding musicology: new ways of hearing

A conventional musicological approach is limited in its application in terms of listening to sound art and experimental music and it is inadequate in terms of a deeper or 'under-listening' to the methods employed by all composers to create work. What is needed is a new musicology that can expand its frame of reference to do this. There have been attempts to do this with reference to gay and lesbian musicology (Brett et al 1994; Mockus 2008) and through a feminist methodology that focuses on compositional form (McClary 1991). While these studies are important texts in opening the field of musicology to wider analyses, they have nevertheless been conducted with what McClary terms a "disciplinary solitude" (op. cit. 1991: 6) – that is, that they are limited to the field of musicology itself. They have also, in the main, dealt with historic forms of classical music in discussing the codification of homosexuality and desire or the representation of women. This "disciplinary solitude" has so far been a limiting one, for it does not extend to the significance of new music or sound-producing sources or, most importantly, the choice (or not) of working within an experimental (as opposed to conventional) field of composition and sound. It is clear that the analytic tools needed for a musicology to address experimental

⁴² I participated in this. Its proceedings are due to be published.

music and its production need a greater sophistication to reflect the complexities at hand.

Concluding remarks

Female composers have not secured the public recognition that their work merits because they operate in significantly different ways to their male contemporaries. Their historic networks have been necessarily different. New forms of music and art have, in many cases, replicated the status quo. One example of an exclusionary organisation is the Club (sometimes referred to as the Artists' Club), created in 1948/49 in New York by sculptor Philip Pavia as a place for (male) artists to discuss their work.⁴³ John Cage and Merce Cunningham were members. In general, women (usually wives and partners of the artists) provided secretarial support. This is a powerful example of a closed system, of avant-garde art nevertheless replicating an older social structure.

The same process is found (although uncommented on) in Robert Adlington's (2009) edited work of essays on the communities created around avant-garde music in the 1960s. In this book, Oliveros – who could have been usefully included in her own right for her work in the community of the San Francisco Tape Center as well as the beginnings of her explorations of a feminist musical economy – is mentioned in passing, in Ralf Dietrich's chapter on ONCE, as the one woman in a list of nineteen composers evincing “a clear commitment to the music of the avant-garde”. (Adlington 2009: 171) This is not a historic problem alone: we see with Tilbury (2008), that even though experimental music is a new field, many of its significant practitioners replicate exclusionary institutional practices of older practice.

The composers that I write about have had to develop their own strategies of music-making and networking to move outside exclusionary systems of control. The reasons for exclusion are historically and culturally rooted, they must be theorised in terms of a muting. This research looks beyond these silences to new ways of hearing the interview testimonies and compositions of these composers. I will articulate a position

⁴³ For a discussion of The Club's foundation, see Larson 2012: 147.

for radical emancipation that comes through the operation of Cixous's *écriture féminine* as applied to female-originated composition. Theorising the interviews will allow me to develop my conception of the sonic artefact, which, fuelled by the liberatory energy that Cixous identifies in *écriture féminine*, will offer a new sounding board for these composers and others yet to come.

In this chapter, I have presented examples of women whose work has either been omitted from history or risks future omission for reasons that devolve around marginalisation, historic sexism and a failure of a professional community to 'hear' their work and the conditions in which they operate. Both Oliveros (2015a) and Nochlin (2015a) have produced analyses, still cogent, on why women are not heard. My next chapter presents methodologies that will enable us to hear their work, alongside the work of others, to 'deep listen' to the practices of women's work.

Chapter Two:

Towards a deeper listening: method and methodologies

They are always in a different space to the listener. *They are surrounded by an invisible world.* At least three persons participate in the conversation: the one who is talking now, the one she was then, at the moment of the event, and myself... [...] My documents are living beings; they change and fluctuate together with us; there is no end of things to be gotten out of them.

Svetlana Alexievich (2017: xviii), speaking about people who have experienced war. (My italics)

When people ask me, “What’s Deep Listening?”, I now say, “I don’t know.”

Pauline Oliveros answers my question, posed at a Deep Listening workshop in Oslo (14 June 2014)

In her oral history interviews conducted with Soviet women who had returned from front-line activities in the Second World War, Svetlana Alexievich draws our attention to the dramatic solitude that comes in the wake of indescribable personal experience. Writing of the continual legacy that traumatic witness brings, Alexievich says of these narrators: “They are surrounded by an invisible world.” A listening practice begins with the realisation that we all carry our own invisible – or unsounded – worlds, and poses the question: how might we develop a listening that acknowledges, honours and extends that unsounded world? How might such a listening hear and understand the sounds that bind and triangulate us within a world of sound and its sonic referrals? These questions are central to this research. They will be resolved in the conceptualisation of the sonic artefact in Chapter Five. This chapter describes the method and two principal methodologies – those of oral history and psychoanalysis – that precede this.

The need for an expanded listening

As Pauline Oliveros's gnomic response (2014, above) to my question asking for a definition of Deep Listening indicates, listening is not a simple process. Ever since John Cage's *4' 33"* (1952), a work that frames silence in terms of its ontological – and therefore, performable – impossibility, the issue of what constitutes listening is an integral element of how we approach the audible. Scholarly work on listening is hugely varied, and ranges from the fields of physiology and aural perception to those of the sonic, phenomenology, anthropology and psychoanalytical. Musicology, the discipline that concerns itself with the structure and analysis of musical form, is itself beset with an epistemological lag: it is useful in terms of retrospective analysis of conventional music, but it falls short in terms of listening to sound art and experimental music, or indeed the historical modes of the production of music. Important musicological analyses on gender bias within historic musical form have been performed by scholars such as Susan McClary (1989), Marcia Citron (1992), and Jill Halstead (1997); their texts form a bedrock for recent feminist-inflected musicological scholarship. Other composers and scholars have advanced new forms of listening as a way of attending to that which has previously been occluded in music: Oliveros and her omnidirectional "intense listening", for example (Oliveros 1998: 3); or Elizabeth Wood's theorisation of the audibility of queer spaces – of "lesbian difference and desire" (Wood 2006: 28) – and the historical traces that they leave in what she conceptualises as Sapphonics. And yet the problem remains: the theorisation of experimental music in terms of gender and of an expanded listening is nascent.

This chapter sets out the methodological basis for an expanded theory of listening that begins to listen to these invisible (or inaudible) worlds invoked by Alexievich. In this research, this means listening to not only the composed work, but to the life and work testimonies of the composers whom I have interviewed for this project. My stress on the sonic materiality of the interviews – their audio as opposed to their visual record – will allow me to drill deep into the sonic space that our encounters create and, from there, develop a theory of the sonic artefact. I will use it to argue in this thesis that the tension produced in the space of the sonic artefact will provide via deeper listening new ways of interpreting my interview data.

The term Deep Listening originates in the practice of composer Pauline Oliveros. For her it was an acute, active listening process that attends not only to sound but the environs of its production and its profound resonance within the listening body. “Deep listening is listening in every possible way to everything possible to hear no matter what you’re doing. Such intense listening includes the sounds of daily life, of nature, of one’s own thoughts as well as musical sounds.” (Oliveros 1998: 3) Both Cage and Oliveros call, separately and differently, for listening. If Cage’s revolutionary act in 1952 was to insist on the impossibility of silence, which he did via the apparatus of a conventional performance (with concert hall, instrumentation, performer and score, its notations indicating that each of its three movements is “*tacet*”), then he did so by teasing the sounds of each performance into its own singular musical event. Oliveros’s call for listening is for a practice that is wider in its focus and its idea of how sound interacts with the listening bodies. As her *Sonic Meditations* show, for Oliveros sound (and, by extension, sound-making) is a profoundly social enterprise. In this sense, her practice of Deep Listening is, therefore, not only an amplification of Cage’s framing of a performance (and its available sounds), but a re-conception of what performance is and what it might do.

Listening to individuals, listening to networks: sonic identity

My research method is one of interviews. Unlike a journalistic interview, which is limited in its scope, my interviews are conducted as oral histories in their attention to the breadth of my narrators’ lives, experiences and works. Oral history interview is acutely conscious of the subjectivity of its participants and of the power relations within the interview and after it (Thompson 2017; Armitage et al 2002; Abrams 2010: 153-174; Armitage 2011: 169-185). As a way of acknowledging these flows of power, I follow Valerie Yow in employing the word “narrator” (Yow 2005: 185) to refer to my interviewees: it is a method that signals *their* importance in *their* narration and narrative structure. The choice of noun reflects the active agency (what Yow stresses as their “primary importance”: *ibid.*) of my interlocutor, the person who speaks her testimony to me, which is in opposition to the passive voice suggested by the suffix appended to the word, *interviewee*, that is, the person who answers another’s questions.

The methodologies I use are drawn from oral history, psychoanalysis, feminism, and sonic theory. This chapter lays out these methodologies and considers their theoretical interaction. These interactions are complex, not least because a research interview strives for cogent boundaries that enable its data to be framed in a distinct way. The vitality – and complexity – of this research is that it involves people and their narratives. It involves an understanding, of their shifting narratives, subjectivities and memories. In privileging the sonority of my meetings with my five composers, I have been led to theorise in greater depth the sonic nature of that encounter and how it – properly theorised in terms of the sonic artefact – might yield a greater understanding of what occurs in an encounter. This methodological bundle points to the fact that no interview method can ever be hermetic. Its boundaries are always porous, because people are porous in terms of their psychic formation and in relation to what psychoanalyst Édith Lecourt identifies as a sonic identity, in which a person owns and recognises their own boundaries through the existence of sonorous phenomena:

I propose to define the notion of ‘individual sonic identity’ in this way: the subjective delimitation of sonorous phenomena belonging to an individual and through which he recognises himself and identifies himself. (Lecourt 1983: 578) (My trans.)¹

Thus, for Lecourt, an individual exists in their own system of sound. This is not a hermetic system, for it will admit (the sounds of) others as a necessary condition of the operation of language and of social relations, but it does, in her thinking, conceptualise a sonic envelope that defines the person. This, as will be seen, will have implications for my theory of the sonic artefact.

Social networks

A different type of porous boundary is posited by the anthropologist Lisa M. Tillman-Healy. (2003, 2015) In her formulation of friendship as method, Tillman-Healy sees friendship – with all its “dialectical tensions, such as those

¹ “*Je proposerai de définir la notion d’‘identité sonore individuelle’ comme: la délimitation subjective des phénomènes sonores appartenant en propre à un individu et au travers desquels il se reconnaît, par lesquels il s’identifie.*” (Lecourt 1983: 578)

between idealization and realization, affection and instrumentality; and judgement and acceptance” (Tillman-Healy 2003: 730) – as nevertheless offering a mode of fieldwork that achieves a “level of understanding and depth of experience we may be unable to reach using only traditional methods”. (Ibid: 737) She also cautions that the information that is provided through the “deep and sustained involvement” (ibid: 741-2) of friendship as method means that the interview encounter’s ethical framework must be firm and rethought to honour each narrator who speaks.

Social networks such as those I have mentioned in Chapter One, including those generated by friendship as method, are not stable. To problematise such interactions is to acknowledge and embrace their fluidity and inherent instability. For Bruno Latour (2005: 5), the social is built out of “trails of association”. The tracing of these associations is the operating system at the heart of Latour’s actor-network theory. In this respect, the Her Noise project radiates associations. This research will trace some of these associations within a sonic (rather than a sociological) framework that ‘listens’ to female networking, friendships, and their methods of work. This will lead us to my conception of the sonic artefact as a tool which postulates new ways of listening and creating knowledge. This will be discussed in detail in Chapter Five. By expanding our ways of listening to both individual and their milieu, we begin to approach the baseline for a methodology of a deeper listening.

Oral history and the interview

Oral history is both a method of collecting data and a composite methodology for this research. In its simplest form, oral history is the act of eliciting and recording the accounts of interviewees or narrators and then analysing the data through specified methodological lenses (Abrams 2010: 1). As a method, oral history originates at the cross-section of several disciplines, including linguistics, anthropology, sociology and psychology (Perks and Thomson 2006: ix; Yow 2018: 34). To this we could add ethnography, heritage studies, journalism and psychoanalysis.

Because of this interdisciplinary breadth, oral history is a unique method of data gathering. Compared to other types of interviewing, it has less focus on specified goals or events. This is not to say that oral history does not offer testimony on certain events, but because it privileges the experienced account and the fluid narrative, it yields richer and more dynamic results. Alexievich's testimonies from her female Soviet combatants (with which this chapter opened) are not so much about battles, as they are about the minutiae of experienced events, networks and relationships (and, indeed, the resonances of these experiences). This way we begin to see the people at the heart of events and come to understand these events through their relationships and experiences rather than at one remove. Oral history is different because, says Alessandro Portelli (1991: 50; his italics), "it tells us less about *events* than their *meaning*". The subjectivity at the centre of the oral history narrative, with its own discrete logic of order, locates the narrators in their own relationship with history. Oral history is a way of pushing against exceptionalism: while the lives of my composers are based in a common field of intersecting discriminations, this method of testimony allows for greater nuances to be heard. So, when Joan La Barbara (Marshall 2016b), for example, tells me what she *believes* – that her compositional contributions to two of the most important pieces of contemporary classical music since 1945 went unacknowledged – she is not speaking of the eradication that another composer may or may not have practised against her so much as relaying a larger narrative located around the difficulty of being recognised, of getting work, of establishing oneself vis-à-vis more powerful figures in the same industry.¹ Similarly, when Éliane Radigue (Marshall 2015c) relates the story of the radio director who solicited sexual favours from her in return for work, she is telling the larger story of gender and unequal power relations.

Ellen Fullman's narrative (Marshall 2015a) provides another example of the interaction of the subjective relationship between events and meaning. In a conversation that we had prior to recording our interview, she related how she did not feature in an important survey book of American music. This was not a comment that flowed from a preceding statement. Rather, it was a piece of

¹ Given that La Barbara is married to the composer Morton Subotnick, this issue of power has both personal and compositional pertinence.

information that erupted without notice into a conversation about something else. I felt affected by her dismay and somehow responsible for it. It was only on subsequent reflection that I interpreted the comment as a question: was I, too, going to let her down, to repeat the neglect, to not listen? If this is the case, this as an example of the interaction between two psychoanalytic processes: those of transference (Freud 1958 [1912b]), in which thoughts and feelings from an earlier situation are replayed in a later one, with a different person; and projective identification, an unconscious process in which 'bad' feelings and phantasies are projected outwards and onto another person as a way of diminishing anxiety (Klein 1987: 7). Both are normal processes of ego functioning. Fullman was giving me a gift of her disappointment, with an unconscious request that I might alleviate this feeling. In the subsequent recorded interview with Fullman, she is scrupulous in naming the people who have helped her career. I read this generosity in the context of her earlier disclosure. She utters the names of her teachers, her helpers, and mentors not only in gratitude and to recognise their contributions, but to record them in a way that she felt herself to be unrecorded. I see in this practice Fullman's engagement with a strong social justice and a rightful sense of worth – in both her own art and actions – and that of others. The reflexivity of my oral history method enables me to theorise Fullman's story in this way. A more conventional interviewing method would not hear these historical resonances or see the parallels in terms of the interrogation of power relationships that feminism, at its ground level, calls for.

It is right to do so, given the mutability inherent in the idea of what constitutes the self and the speaker. Oral history touches on many areas: the self as an historical entity, and the presentation of the self; gender, race and class issues; the profound and fundamental nature of the encounter between people. To this we must add, a fundamental instability of what we understand by self, by who the "I", the speaker, or the listener is at any one moment. The psychoanalyst Paula Heimann, writing in the mid-1950s, articulates this motility in terms of transference currents. (Heimann 1989a [1955/56]: 115) Writing in relation to the text, Julia Kristeva defines this instability of the pivotal "I" as her first signifying practice: "the "I" is as "changeable as a mask". (Kristeva 1984: 91) Translated to the sonic, the medium in which the interview takes place, we must thus listen for signifying practices not only of

coherence, but incoherence, the fractured discourse that, for Kristeva, dissolves “the buffer of reality in a mobile discontinuity, leaving the shelter of the family, the state or religion.” (Op. cit: 104)

“Eleventh-hour ethnography”: the urgency of testimony

Oral history is also special for its ‘liveness’, a quality that accentuates its essential temporality. Even as a sound, once struck, has a sonic life – it attacks and decays – so do spoken words and the memories that they carry. “Memories are living histories,” write oral historians Robert Perks and Alistair Thomson and, to amplify this friability, they cite an African proverb: “‘Every old man that dies is a library that burns’.” (Perks and Thomson 2006: ix) In this way, they draw attention to the special nature of the relationship between history and memory: history is a lived experience and its first repositories are the person who speaks and the person who listens.

Yet contained within Perks and Thomson’s words is a stark reminder: memory is mortal. It is vulnerable to many things. It can degrade through age and physical frailty; and death equates to its ultimate erasure – no method can ‘download’ the complete memory of any human, even if such a thing were to be thought advantageous. Paul Thompson and Joanna Bornat point to neurological research that suggests that humans constantly restructure memory, a process that can be affected by ageing and disease. (Thompson and Bornat 2017: 201-202) The historian Arlette Farge reminds us that the archive of the human life will always be incomplete. (Farge 2013) Moreover, memory and the stories that emanate from a person’s history are not fixed. They are circuitous, and facts can undergo a temporal shift. This is stressed by Portelli. “A life history is a living thing,” he writes. “It is always a work in progress in which narrators revise the image of their own past as they go along.” (Portelli 1991: 61) Oral history, he writes, has a:

[...] sense of fluidity, of unfinishedness, of an inexhaustible work in progress, which is inherent to the fascination and frustration of oral history – floating as it does in time between the present and an ever-changing past, oscillating in the dialogues between the narrator and the interviewer, and melting and coalescing in the no-man’s land from orality to writing and back. (Portelli: op. cit.: vii)

In addition, there is the possibility that the memories could remain unspoken, unspeakable or unheard, that conflict, social disinterest or the lack of conventional value contributes to this, and this is a problem that pertains especially to the voices of women.

In the course of taking testimonies from the elderly witnesses of the Holocaust, the oral historian Shirli Gilbert (2008: 110) speaks of her research as an “eleventh-hour ethnography”.² She is documenting the history, lived and experienced, of her narrators before they die. And my narrators will die, too: Oliveros died a few months after our interview; Radigue, the oldest of the five, is conscious of the passing of so many of her interlocutors.³ In taking the oral histories of these composers, I intend to begin to alleviate the historical silencing of female creativity.

Oral history: listening to the unspoken, reading the unwritten

Oral historians have noticed that women’s voices are often muted in the testimonies of history. Kathryn Anderson and Dana C. Jack write that: “Anthropologists have observed how the expression of women’s unique experience as women is often muted, particularly in any situation where women’s interests and experience are at variance with those of men.” (Anderson and Jack 1991: 11)

Because primary, experienced memory resides in the mind of the speaker, it lives only while the speaker lives. This is the living memory. While it is important to note that a single person’s store of experiential knowledge is not capable of complete transmission, it is nevertheless partially transmissible. Oral history interviews, while imperfect for many reasons, are unparalleled best data sources in terms of accessing this experiential memory.

I shall analyse the raw data of my research interviews through the methodological lenses of psychoanalytic, feminist and oral history theory. The interviews are a way of filling the lacunae in the larger historical record of compositional work that has, for reasons I have already touched upon, neglected the *opera* of these composers. The

² Also known as “salvage ethnography” (Gruber 1970).

³ After the death of Pierre Henry (1927-2017), Radigue wrote to me expressing this awareness.

interviews themselves – as matters of record, as artefacts, as intimate pieces of performance enacted between me, the narrators, future listeners and readers – are also performative utterances underlining the existence and work of these composers.

Oral history: temporalities

Oral historical narratives have their own relationship with chronologies. This unreliability can be a strength. The misremembering of dates can reveal new truths: in his oral history around the death of Luigi Trastulli, a worker shot dead at an anti-NATO demonstration in the town of Terni by Italian police, Portelli found that many of his narrators had unconsciously changed the date of Trastulli's death from 17 March 1949 to later ones which resonated with personal additional meaning. In most cases, the death was transposed to October 1953, when more than 2,000 steel workers were laid off in Terni.

Such “imaginative errors” (Portelli 1991: ix) add an extra layer of significance, in the same way as parapraxes in the psychoanalytic encounter point to covered material (Freud 1901b). For Portelli, these errors are important. He writes: “Rather than being a weakness, this is however, their strength: *errors, inventions, and myths lead us through and beyond facts to their meanings.*” (Portelli 1991: 2. My italics) Echoing Freud's terminology of displacement and condensation in relationship to dreams, Portelli uses these two terms from Freudian psychology to point to his own methodology, which he subsequently develops to consider the way that oral narratives situate a story within time.⁴

Portelli's structure of the temporal elements contained in a personal story echo earlier attempts by structuralists to delineate narrative structure (see, for example, Propp 1968). Portelli's methodology postulates a system of “modes” and “levels” on which to map oral history narratives (Portelli 1991: 69). This system takes account of how subjective time is not the same as chronological time, something that has the effect of realigning the emotional weight of the ‘facts’ of stories. These alignments will

⁴ The discussion following Portelli's subheading “Displacement and Condensation” does not mention Freud, and nor is Freud cited in his endnotes or index. In writing about Freud, it seems that Portelli is performing his own unconscious displacement. (Portelli 1991: 13)

influence the telling and the outcome of a story (ibid: 70). This is something we see illustrated when we compare the subtle changes in a story crucial to Radigue.

In the Appendix (pp. 226-229), I compare three versions of a story of her early childhood that Radigue gave to three separate interviewers: Bernard Girard (2013), Hans Ulrich Obrist (2014), and me (2015c). In each account, the same events are covered, but, in their telling and retelling, Radigue alters the story in its narrative structure and fine detail. Table 1 (Narrative structure in Radigue's "Hein?" story) tracks the format of Radigue's three accounts. Table 2 (Narrative themes in Radigue's "Hein?" story) identifies the elements of the story in terms of themes. It has an epic sweep: there are 'good' people and 'bad' people, danger is identified and averted; there is a 'magical' solution that comes about by subterfuge. Interestingly, given the psychoanalytic implications of a clear good/bad splitting, there is a fantasied identification as the daughter of the 'good' (as opposed to the 'bad') mother.

History from below

Oral history has been characterised by historian Lucien Febvre as a "history from below" – a "*histoire des masses et non des vedettes; histoire vue d'en bas et non d'en haut*"⁵ – in that it chronicles that which is not normally chronicled. (Febvre 1932: 576) It offers a description of historical studies that take as their starting point at a place outside that of political and social elites. In the British context, Febvre's conception of a history that is otherwise unnoticed has been critical to the work of historians such as E.P. Thompson (1966) and Raphael Samuel (1983), who have brought non-elite voices into political and social historiography. If we read Febvre's "below" in terms of suppressed or muted voices, we hear the voices of women carving a way of creating their own work within new areas of music. The "below" in oral history interviews is a way of using a person's life experience as a historical artefact that can, in turn, be parsed to yield new meaning.

If oral history allows – to utilise the phrase of the literary theorist Gayatri Chakravorty Spivak (1988) – the subaltern to speak, that is, to allow those who

⁵ A "history of the masses and not that of celebrities; a history seen from below and not from above." (My trans.)

are normally spoken for to speak out, it follows that the oral history interview with women must always be a feminist encounter. As Sherna Berger Gluck argues:

Women's oral history is a feminist encounter, even if the interviewee is not herself a feminist. It is the creation of a new type of material on women; it is the validation of women's experiences; it is the communication among women of different generations; it is the discovery of our own roots and the development of a continuity that has been denied us in traditional historical accounts. (Gluck 2002: 5)

Moreover, oral history, because it is transmitted by words, rather than text, has the effect of energising the tension that exists between the oral and literary traditions. For Kathryn Marie Dudley, this is an issue of “epistemological equivalence”:

The appearance of an epistemological equivalence between transcripts and field notes rests on the assumption of a dichotomy between oral and literary traditions. Speaking and writing are shorthand ways of signifying a basic difference between informants and ethnographers – between the site where we collect our materials and the academic environment where we present it. [...]. Thus in both oral history and ethnography, speaking is coded as a preliterate mode of communication, and the written word is privileged as a diagnostic activity. (Dudley 1998: 161)

It is easy to see how Dudley's “epistemological equivalence” is important when the interview encounter is one between a researcher and a person of limited cultural capital. But what of the equivalence in the case of my interviews, conducted with composers who do have cultural power? For Dudley, the written text – she uses the example of an archive – is a “site of textual discovery”. (Dudley 1998: 163) It then follows “the field” (the oral encounter) then becomes a site of *pre-textual* discovery”. (Ibid.) Each “site” offers a different type of knowledge: and because this “pre-textual” knowledge is unfixed, it carries the hallmark of “mobile discontinuity” that Kristeva assigns to oscillating positions of subjectivity in terms of the mutable “I”. (Kristeva 1984: 104)

This slipperiness, mutability, unfixedness, is not to be avoided as a weakness. Rather as Portelli sees in errors a new way of assigning a subjective meaning–

which then amplifies historical events and narratives in additional ways – so I hear, in this fluidity, a shimmer of new meaning. The sonic artefact can be a temporal space capable of containing the sonorities of these unfixed histories, errors, and “pre-textual’ discoveries.

The spoken versus the transcript

Oral testimony comes before a written testimony. This is an essential difference. It accentuates the fact that a narrative’s first point of contact with the outside world is the not-written account. This latter account, in contrast, is, to employ Dudley’s terminology, a post-text: it promotes the fixity of the written word, and it is produced after the eradication of drafts, false starts and erasures. Janet Malcolm sets out the difference in this way:

The transcript is not the finished version, but a kind of rough draft of expression. As everyone who has studied transcripts of tape-recorded speech knows, we all seem to be extremely reluctant to come right out and say what we mean – thus the bizarre syntax, the hesitations, the circumlocutions, the repetitions, the contradictions, the lacunae in almost every non-sentence we speak. (Malcolm 1991: 15)

Malcolm writes within the context of a journalistic encounter, where the advent of recording devices “has opened up a sort of underwater world of linguistic phenomena whose Cousteaus are as yet unknown to the general public”.⁶ (Ibid.) However, her point can be extrapolated into any other situation (a psychoanalytic session, for example) in which ‘raw’ talk occurs. This difference between the fluid first accounting and the fixed, written account is a crucial one within the methodologies of both oral history and psychoanalytic discourse analysis. Material can be re-arranged, suppressed and misrepresented in raw speech by its spontaneous production: the slips and parapraxes are all meaningful. In prepared speech (that is, the edited text), this is tidied away from view: hesitations, uncertainties and mistakes are harder to see.

⁶ Malcolm recognises the formal distinction between speech and text and says that both serve separate purposes: “When a journalist undertakes to quote a subject he has interviewed on tape, he owes it to the subject, no less that the reader, to translate his speech into prose. Only the most uncharitable (or inept) journalist will hold a subject to his literal utterances and fail to perform the sort of editing and rewriting that, in life, our ear automatically and instantaneously performs.” (Malcolm 1991: 155)

There is a clear gap between the two records that an interview offers: the oral report and the text. But importantly, the sonic interview offers sonic meaning – an “epistemological equivalence” (Dudley 1998: 161) – that is unframed by semantic language alone. The tension between the two types of narratives will be discussed in Chapter Three in the context of narrative construction.

A mutual sighting: the “inter/view”

An oral history interview involves a speaker and a listener. Their dialogue is a relationship that forms the heart of its method and it is important to stress that the relationship is dynamic both in its overt conduct – questions are asked, responses are given – and its undercurrents. It is equally important that the dialogue between speaker and listeners, that is subject and researcher, is also an inter-subjective encounter. Portelli puts relationality at the heart of the interview encounter. Michael Roper, an oral historian who employs psychoanalytic theory, concurs. In “Analysing the Analysed: Transference and Counter-Transference in the Oral History Encounter”, Roper states that the interview is, “by definition, a relationship”. (Roper 2003: 21)

“An inter/view is an exchange between *two* subjects: literally a mutual sighting. One party cannot really *see* the other unless the other can see him or her in turn” (Portelli 1991: 31, his italics): this is how Portelli defines the dynamic meeting between an interviewer and the narrator, the process with which material is sought and narrated. His use of the virgule (or forward slash) accentuates the etymological breakdown of what the “inter/view” is: it is a shared, sensed process of mutuality and – ideally – equality. While Portelli concedes that equality between researcher and narrator, especially within the context of the anthropological field interview, is often a contested enterprise, he nevertheless stresses that any encounter that deals openly with power inequalities between researcher and narrator creates “an experiment in equality” and is to be sought after. (Op. cit.: 32) A formal, spoken encounter without the promise of this “experiment in equality” will be conducted with no possibility of “inter/view”: the process would be, at worst, an interrogation, at best, a one-sided process of disclosure.

Reflections on my own subjectivity

However, a mutuality demands a mutual disclosure, and an acknowledgement that dealing with another's subjectivity has an impact on one's own subjectivity – hence my response to Fullman's story of the omission. How the researcher uses knowledge derived from their own subjectivity is a contentious area. An understanding of psychoanalytic theory regarding transference, counter-transference, projection and introjection, is useful, but the interview is never a therapeutic situation. In her 1997 paper, “‘Do I Like Them Too Much?’ Effects of the Oral History Interview on the Interviewer and Vice-Versa”, Yow (Perks and Thomson 2006: 54-72) describes how an awareness of the two-way subjectivity transmission could pose a theoretical problem with oral history's method and the resulting data. Summarising the case for embracing subjectivities, Yow cites Luisa Passerini's 1979 oral history of work and consensus during the Italian fascist period, who argues that “we have to be able to use subjectivity – both for narrator and interviewer – in understanding social history because both invest events with meaning”. (Op. cit: 56) Indeed, to refuse one's subjectivity in what is, like any meeting, an intersubjective encounter, risks what Heimann warns of as the possibility of becoming “inhuman”:

In supervision I could see how many candidates, misunderstanding Freud's recommendations... and particularly his comparing the analyst's attitude with that of a surgeon, endeavoured to become inhuman. (Heimann 1989a [1959/60]: 151)

“Frightened and guilty” (op. cit.) when the candidates' own emotional responses to patients are triggered, they banish the feelings “by repression and various denial techniques”. Consequently, says Heimann, they become less sensitive, less responsive, less *useful* to the patient.

Although Heimann is writing for clinical practitioners, her caveat is nevertheless one which any researcher within an interlocutory practice should heed. So how should a researcher conduct themselves within an oral history interview, and with what attitude? These are questions that address ethical issues. The questions also play into my stance as a feminist researcher who seeks a meeting of mutuality rather than one that reinforces and replays systems of power.

The interview as an ethical encounter

Certainly, the interview is structured as an ethical encounter in which, crucially, the narrators retain agency and control. All my narrators gave freely of their time and were generous and thoughtful in their answers. I am grateful to them and I hope that I created situations in which they felt that they had equal power. In practical terms, their power could be expressed in several ways. They could ask for pauses; they could refuse to answer questions; if an area of conversation made them uneasy, they would not be pressed. On a few occasions, I sensed that narrators would not go down a certain path and so I held back. After the interview had taken place, we would talk in a more relaxed manner. Later, once I had transcribed the recordings, I would send the text and audio files to my narrators, reminding them that they had the right to excise any material that they felt uncomfortable with from the dual-record: the recording and the transcript. If this was requested, the edited records were sent again to the narrator for final approval. Often, the email exchanges between me and my narrators have been enriching to my research as new details have emerged, new observations and reflections made. In these cases, I can say that the interviews have truly approached the mutuality that Portelli's "inter/view" is predicated on.

Taking an oral history testimony requires that a relationship be created between the researcher and the narrators. The relationship is a living one, subject to twists that need to be negotiated with a clear vision of the ethical pathway ahead. These include setting up meetings and locations; the possibility of invitation to a narrator's home. The researcher is face-to-face with the narrators who have been interviewed often and are confident in their public performance (Pauline Oliveros); with the under-interviewed (Ellen Fullman); with the artist who is ready to tell her tale (Annea Lockwood);⁷ with the artist with whom mutual friends are shared (Joan La Barbara); and with the quietly reflective (Éliane Radigue).

⁷ I characterise Lockwood in this way because it was a conversation that we shared that instigated the original ideas for this research, so, in a sense, she was already prepared for me.

The interview within a feminist network

My interview with Lockwood was built upon a pre-existing relationship which now continues beyond this research. In the cases of Radigue, La Barbara and Fullman, I have created new networks of affinity that we can add to at later points.⁸ Oliveros I had met only twice before we conducted our interview. This networking is itself significant, for through it, I find that I, too, am implicit in what Rodgers identifies as “friendship as a method”, that is, the network of friends, acquaintances and fellow-travellers that links together people in chains of communication, with certain designated people functioning as hub or nodal points from which a rich cluster of networks radiate out from. (Rodgers 2010: 3)

I initially approached this research asking how female composers operated outside the established musical hierarchies; I assumed that the method of friendship would be a female (and feminist) strategy deployed in order to provide new structures for work and support, for the conditions of possibility. This has been so in a few cases – here, I think of Oliveros’s early work exploring the possibility of a feminist-separatist economy. However, other than Oliveros, I find, again and again, that the hub people are male. The names of Bob Bielecki and Phill Niblock recur in nearly every narrative I collect. Fullman speaks of Bielecki as a “genius” who provided her with the theoretical and practical knowledge for tuning the Long String Instrument; Lockwood refers to him as an important and valued artistic collaborator. From this I surmise that the friendship networks can reflect a community of mutual interest that formed around these new expressions of music. An example of the championing of this new music, and the importance of systemic support can be seen in Oliveros’s work on the National Endowment for the Arts in helping to aid and therefore promote the careers of young artists through the hugely important practice of grant-giving.

⁸ For example, Lockwood asked me to visit and report back to her on the sound levels to her work, *Dusk* (2012), which was installed in *Aftershock: The Grammar of Silence* at the Laure Genillard Gallery, London (17 September-12 November 2016). Our ensuing email conversation led to an elucidating discussion on her participation in the Destruction in Arts Symposium (1966), principally the Duncan Terrace Piano Destruction concert with the ‘unmaker’ artist Ralph Montañez Ortiz.

Many types of exchange are happening continuously in the interview: the sonority of the event means that we must attend to the performativity of the narrator, the grain and timbre of the voices, gesture, and so on. The relationships that we forge are vital, changing things in which many emotional aspects might arise, many suspicions, many defence mechanisms. But I acknowledge that I too am central in the creation of the project itself: I am complicit in what Voegelin calls the “dynamic production” of the sound encounter. (Voegelin 2010: xii) This complicity in the sound demands that I interrogate the ways in which I listen to myself. I, too, must devise a way to deep listen to myself, to understand my reaction to interview material and encounters with composers and to move forward from there. The encounter of the interview thus throws up a challenge: to translate the Portellian concept of the “inter/view” into the sonic as an *inter/listening*, an encounter in which there is a mutuality of listening.

Oral history and psychoanalysis are methods that share a concern in the dynamism of a narrative and how a story is conveyed, with all its hesitations, diversions, and instances of paralinguage. Both disciplines also share another initial similarity in terms of the dyad of researcher/analyst and narrator/analysand. They are both intimate encounters in which talking and listening takes place. And because these are human encounters, these encounters come with invisible baggage – the transferential currents, the projections, and defences – that characterise psychological processing. The instability that Kristeva pinpoints in relation to signifying practice is an inescapable, ontological fact that has its own history in individuated psychic formation.

Psychoanalysis and the interview

Whether practised in a clinical setting or used in an applied setting, psychoanalysis shares a primary concern with both frameworks: the uncovering of that which had been repressed. It does so through the primary method of utterance and the imperfect vehicle of language. “The language of desire is veiled and does not show itself openly,” states the literary theorist Elizabeth Wright. (Wright 1987: 1) What constitutes this desire, its formation and its expression *qua* symptoms, is at the heart

of the psychoanalytic project and, therefore has implications for knowledge generated as the result of any application of psychoanalytic theory. In the therapeutic setting, psychoanalysis aims towards the uncovering of desire, leading to greater self-knowledge and abreaction – the alleviation the symptoms express an underlying psychic pain. When psychoanalysis is applied to other scenarios – the textual, in all its forms, or non-therapeutic encounters – it cannot be with the idea of cure as its aim so much as an unveiling, a making apparent (or sonorous) that which was hitherto latent and unheard. For Wright, the application of psychoanalytic theory provides a cogent model for interpreting and situating, in time and space, the material (whatever it might be) to be analysed:

[F]irst, I see psychoanalytic criticism as investigating the text for the workings of a rhetoric seen as analogous to the mechanics of the psyche; second, I argue that any such criticism must be grounded in a theory which takes into account the relationships between the author and the text, and between reader and text; and third, I argue that these relationships be seen as part of a more general problem to do with the constitution of the self in social systems at given moments in history. (Op. cit.: 6)

Wright brings into view the dynamic complexity of the relationships between parties – author and text and reader, and, by extension, narrator, text and listener. This relationship is not one of fixity, not least because of the special difficulties that being framed within history brings with it: “[History] is a field not directly accessible: to negotiate it, both psychoanalytic and literary-critical readers need to resort to play, fiction and illusion.” (Op. cit.: 178). The necessity, in Wright’s terms, for a directly accessible meaning is not a weakness, but, rather, the foundation point for richer meaning. In the same way that Portelli identifies “imaginative errors” in a narrative as a way of producing greater subjective meaning (and therefore, of greater historical importance), so might an expanded methodology of listening, that listens through and listens under the words spoken do the same thing. (Portelli 1991: ix)

Integral to this critical listening, is an ear for rhetoric, the structures of speech in which we wrap our utterances. Film theorist Laura Mulvey (2009 [1975]), writing several years before Wright, unveiled the “workings of a rhetoric... analogous to the mechanics of the psyche” in regard to cinematic gaze in “Visual Pleasure and

Narrative Cinema”, her paradigm-shifting essay which was first published in 1975. In Mulvey’s essay, psychoanalysis is “appropriated as a political weapon, demonstrating the way the unconscious of patriarchal society has structured film form.” (Op. cit.: 14) Thus, psychoanalysis becomes a tool to identify, and then tease apart, the issues of who gazes and who is gazed-upon, to consider issues that concern agency and power, image and meaning, scopophilia, fetishism and narcissistic identification. The fantasy world of the film is one made up of partial objects – the image, the icon – which, crucially, means that no sense of a unity can be gained: hence, the alienated, fetishistic unreality that Mulvey describes. She unpacks this through psychoanalytic tools, and, indeed, looks to a remedy: “The first blow against the monolithic accumulation of traditional film conventions (already undertaken by radical film-makers) is to free the look of the camera into its materiality in time and space and the look of the audience into its dialectics and passionate detachment.” (Op. cit.: 27)

Sound as text is, however, different in the way that it acts and the way it is apprehended. Unlike the texts generated by cinema, writing or the plastic arts, sound is a dynamic entity that is performative in both its delivery and its sonority. To understand the modality of sound, the medium needs its own psychoanalytically-derived theory of listening to hear beneath its different meanings. This does not yet exist. I contend that the tool of the sonic artefact offers a solution. Understanding that meaning is generated in a third space, which is made possible by the porosity of Lecourt’s sonic boundaries, the space of the sonic artefact sits *between* interviewer and narrator. It is in this way that its theoretical richness is available to accentuate the dynamism and depth of Oliveros’s listening practice.

Psychoanalysis and speaking: transference

Speech is never without its history, its resonances. The psychoanalyst Paula Heimann recognises this fact in this way:

The question the analyst has to ask himself constantly is: “Why is the patient now doing what to whom?” The answer to this question constitutes the transference interpretation. It defines the patient’s actual motives, arising from his instinctual impulses and from his defences against pain and anxiety towards the analysts as their object. It defines the character of the analyst and the

character of the patient at the actual moment. (Heimann 1989b [1955/56]: 115)

The dynamic situation that Heimann is addressing – and its concomitant question of “Who is speaking?” – is the transference situation. Transference is a process of ego functioning in which an analysand transfers or projects feelings and attributes associated with one person onto another person. Counter-transference is the feeling provoked in the analyst by the analysand’s transference processes. One of the most important motors of the practice of psychoanalysis is the deep understanding of these two processes – the making conscious the flow of unconscious thoughts to do the analytic work. At its heart is an understanding of the instability of the speaker’s identity, as Julia Kristeva’s (1984: 104) points out. To invoke the title of my research: if the analyst is a deep listener, then it follows that the patient must be a deep speaker.

Roper provides insight into these processes in his paper in which he takes the life histories of two practising psychotherapists. (Roper 2003) He suggests that an understanding of transference processes can aid and enhance an understanding of the interview itself: “The interview is not simply a narrative, but rather, a relationship in which there are two subjectivities at play.” (Roper 2003: 20) He recognises the importance of the “reflexive turn” within social science methodologies, in which a researcher’s “personal involvement... in data collection”, far from ‘tainting’ the source, is often now regarded as the very touchstone of interpretation”. (Op. cit.: 21) He cites some examples of this reflexive turn – for instance, age, class, gender, ethnicity – which can “shape interactions” of the interview situation. He also draws attention to the important observation made by Karl Figlio in 1988: “[W]hen interviewing we are in a transference situation, whether we like it or not.” (Roper 2003: 21) Unavoidable then, these twin forces of transference and countertransference act on me and my narrators: we are in a relation of psychic action and reaction, a relation that is at once contemporary and historic. It means that, simply, I am, as is my history, part of the oral history interview.

Psychoanalysis and listening

Given that the method of listening is implicit to psychoanalytic practice, it is surprising that little has been written about the subject and the process of listening

itself. In early papers on psychoanalytic technique (for example, 1953 [1911e], 1953 [1912e]), Freud writes on numerous aspects of the setting and frequency of sessions or the body-language of the analysand, but little on how the analyst should listen beyond the practice of free-floating attention:

The technique [...] consists simply in not directing one's notice to anything in particular and in maintaining the same "evenly-suspended attention"... in the face of all that one hears.
(Freud 1953 [1912e]: 111-112)

Where listening is addressed by Freud, it is in terms of receiving information from the "transmitting unconscious of the patient" (op. cit.: 115) in the form of transference, projective identification and counter-transference. The few texts on psychoanalytic listening subsequent to Freud – these include Theodor Reik (1972) and Erich Fromm (1994) – have contributed little to a greater understanding of the therapeutic listening. Reik, in his formulation of the "third ear" (the phrase originates in Nietzsche's *Beyond Good and Evil*), echoes Freud's importance of counter-transference: the third ear is, a listening "lured inwards" (Reik 1972: 144). Fromm simply restates Freud in reiterating the analyst's need for concentration. The most important contribution to theories of listening in clinically-based work comes from Salman Akhtar (2013), whose four models of analytic listening (objective, subjective, empathetic and intersubjective), echo – in structure, if nothing else – Pierre Schaeffer's (1966, 2017) four modes of listening: *entendre* [to hear], *ouïr* [to perceive aurally], *écouter* [to listen] and *comprendre* [to understand].⁹ However, Akhtar, like Schaeffer before him, is concentrated on listening as a transmission. Only in the French psychoanalytic tradition, which is enriched with a particularly wide frame of reference, does the work of analysts such as Lecourt (1983, 1990) and Didier Anzieu (1990) genuinely impinge on the realm of the sonic. The effects of sonority on personal psychic space, what Lecourt terms as the "self-sound interval"¹⁰ (Lecourt 1983: 578), opens up new territories for analysis.

⁹ Schaeffer's four listening modes are an attempt to provide a structural framework to aural understanding and interpretation. (Schaeffer 2017: 80-93)

¹⁰ "[I]ntervalle sonore du soi." (Lecourt: 1983: 578)

Despite an absence of any substantial psychoanalytic literature on listening, a psychoanalytic theory of the sonic is possible. It is achievable by theorising listening as a process that occurs within a sonic spatiality and where listening is structured around language as sound, narrative and a resonating depth of encounter itself. Because this resonating depth calls into play the subjectivity of the listener themselves, listening becomes more than a process of reception. Such a theory of listening can be approached via two psychoanalytic-based formulations – Lecourt’s self-sound interval; and through a sonic application of the psychoanalyst and philosopher of science Bernard Burgoyne’s mathematically-based general topologies. (Burgoyne 2003, 2011) Used together, these will lead to the sonic artefact.

Towards a sonic space: a psychoanalytic theory of listening

In Chapter Five, I shall write in greater length on the sonic artefact and the space it occupies. For the moment, I want to mention one aspect: its existence as a space between two others and in which sonic resonance of speech resides. But as soon as space is mentioned, one needs to think of its structure. Both Lecourt and Burgoyne speak of boundaries. For Lecourt:

The self-sound interval... covers the relations of individual sound identity with the present environment. It is located on many axes: inside/outside, subjective/objective, near/far, in the relation to the object... The extent of this interval depends on perceptive and sensorial capacities (perception of vibrations for instance), and their mode of use. (Lecourt 1983: 570)

The sonic identity that Lecourt writes of is simultaneously an identity of psychology. A healthy sonic identity would be one that could regulate its sonic space. However, an interval suggests a space between two points: in this space, the encounter of the interview, speech and listening take place. It is an intimate sonic environment. For Burgoyne (2003, 2011), to speak of space and its properties – boundaries, points, neighbourhoods and alignments – means that there is a need for a theory of space as a way of interpolating its characteristics. In a paper given at *Topology* (2011), a conference looking at metaphorical applications of this mathematical tool, Burgoyne uses a phrase from the Idealist

philosopher Johann Gottlieb Fichte – “a multitude of invisible bonds” (Fichte 1806, cited by Burgoyne 2011: n. p.) – to describe a culturally-determined geographical and political space as a way of beginning to look at the arrangement of psychic space, in which utterances, silences and gestures assume the equivalence of the contours of a physical landscape. The interviews I conduct are, in terms of social space, unremarkable. With each narrator, I sit and talk and listen. Sometimes there is movement: Radigue’s remembered gestures of how she adjusted the potentiometers of her ARP 2500, for example; La Barbara stroking a remembered bead – a good-luck charm – that she would wear on a necklace; or Fullman’s sliding finger movements when talking of the Long String Instrument. Besides these slight and ordinary occurrences, little of the outside world intervenes. However, in this otherwise unremarkable social space, my narrator and I enter into an intimacy that could be (*pace* Portelli’s “mutual sighting”) characterised as a mutual listening: not so much an “inter/view” (1991: 31) as much as an ‘inter/listening’.

Burgoyne suggests that we can import tools from mathematical theories of a general topology to structure the content of a psychic space that a narrator presents us with in terms of how they speak. He says:

In psychoanalysis, the points are phrases or fragments of phrases and the space here is a vehicle for desire and a dissatisfaction. In all of these spaces, the structure of the space tells the history of the passions experiences by the actors involved. Passion and action are, in many ways, the part of the structure of any space. (Burgoyne 2011: n. p.)

His application of topology as a way of structuring a psychic space has a use beyond that of ordinary narrative discourse analysis. The proximities and relationships between nodes of speech can open alignments and histories; they can ascribe affect where it might not otherwise be identifiable. In addition, a psychoanalytic topological analysis counterbalances the ego-centred processes of transference and counter-transference: together they produce a better mapping of what is being said and how it is being listened to.

Sonic theory and listening

We have already seen how the practice of oral history – and more recent transmission of psychoanalysis – demand an inter-subjective listening, but how does listening fit within sonority itself? Sound fills the third space between me and the narrator, just as it joins us and separates us. We are, as philosopher Dominic Pettman reminds us, “born *in* and *of* sound”. (Pettman 2017: 1) This creates a paradox: we cannot stand outside of what Voegelin terms “[s]ound’s ephemeral invisibility” (Voegelin 2010: xi), meaning that a limitless reflexivity is needed to engender any critical engagement, with its immaterial material. For sound art theorist Brandon LaBelle:

Sound is intrinsically and unignorably relational: it emanates, propagates, communicates, vibrates, and agitates: it leaves a body and enters others; it binds and unhinges. Harmonizes and traumatizes; it sends the body moving, the mind dreaming, the air oscillating. It seemingly eludes definition, while having profound effect. (LaBelle 2016: ix)

Therefore, to be inscribed in the immateriality of the sonic – as we all are – is to embrace a network of relationality, what Voegelin describes as “an act of engaging with the world”. (Ibid.: 3) But sound also resonates; it is heterochronic in the sense that it echoes backward through the sonic historiography that we each have: to use Jean-Luc Nancy’s words sound “is also made of referrals: it spreads in space, where it resounds while resounding ‘in me’”. (Nancy 2007: 7) Sound is disruptive in the sense that it brings up a concealed past.

Introducing the sonic artefact

I first noticed the capacity for sound to disrupt during my interview with Radigue (Marshall 2015c) and it is from this experience that my conceptualisation of the sonic artefact stems. Sitting with Radigue, I could observe how her demeanour changed as she spoke about her relationship with a jealous and overbearing mother who sought to cut off her music lessons in what seems to have been a sadistic manner. In the following transcription from our interview, Radigue speaks of her adored piano teacher, Madame Roger, as well as of her mother, Mme Radigue. Prior to this,

Radigue had spoken of the severity with which her mother treated her. This was expressed by an admonishment: when Mme Radigue said, “*Hein, Éliane?*”, it signalled the end of any debate. This “*hein?*” was a rhetorical question that signified an absolute power. In quoting this to me, Radigue’s voice and bearing changed to act out the maternal anger.

“*Hein, Éliane?*”

Radigue is speaking at approximately ten minutes into the interview.

Éliane Radigue: Yes, so... the big chance in my life has been that the mother that a friend of mine from the school, who was close also for my mother, was playing piano. And the mother of this young friend saw my fascination for that, so she said to my mother that at least I should try and the fact was that Mme Roger, this teacher, was in the same house as this woman, you know. And so my mother, who had respect for her friend, say, yes, okay. And the chance of my life was to meet Mme Roger because, you know, Mme Roger immediately [snaps fingers] has feel that there was really something... She gave lesson to child where all of a sudden... I can say so now, because I have also been through that on the other side when you see someone with really deeply, a deep interest, immediately you want to give, to give more, and now for me the test is that there have been one or two times to the little piano in the *salle*, the living room, and almost immediately she put me on the piano and she learn me everything, everything. I was fascinating by the story of music, I was fascinating by another, which was the construction, by harmony, by everything. *The problem has been that my mother became jealous, because I was always speaking of Mme Roger. Mme Roger was my goddess, you know!*

Louise Marshall: You were about how old?

Éliane Radigue: I was still at the primary school, because... I was eight, nine, ten. It was before the high school, which we were at eleven. After a while, my mother decide that, you know, it was too much and she bring me to Mme Roger, saying to Mme Roger: “*You know, Éliane doesn’t want any more to take lessons with you, hein, Éliane?*” [A pause] Yes. But everyone understood what was happening, knowing my mother. And there has been a kind of, er,... that was

very... very funny, because the friend of my mother, through who I had, I had met Mme Roger and was in the same house, invited me to through my mother to play with her girl together and when I arrived, she said, “So go up to the fourth floor. Mme Roger is waiting for you.” And for years Mme Roger, secretly without even pay, was giving me a lesson [...] I was only afraid of one thing and that was if my mother had discovered that. (Marshall 2015c: 00:09:13 et seq. My emphasis)

I identify this “*Hein, Éliane?*” moment as a key moment in my interview with Radigue. I see it, in all its two seconds’ duration, as a performative utterance in which Radigue channels the devastating attack, made nearly eighty years ago by her mother, into the present. Her voice and body language change as she performs this. Enacted in “*Hein, Éliane?*” is a moment of continuous damage, which is only repaired by the knowledge that Mme Roger is waiting for Éliane.

In 1953, the psychoanalytic paediatrician D. W. Winnicott introduced the concept of the “good-enough ‘mother’” in “Transitional Objects and Transitional Phenomena”, a ground-breaking paper which considered how the infant used representational (transitional) objects in their progress separating from their care-givers. In his psychology, the mother (that is, the care-giver) needs to be adequate and “not too persecutory”. This is necessary to nurture the infant, and, importantly, to allow its normal development to proceed from a place of infantile omnipotence to an acceptance of what Freud termed the reality principle. (Freud 1984 [1911b])

Winnicott explained the good-enough in this way:

The good-enough ‘mother’ (not necessarily the infant’s own mother) is one who makes active adaptation to the infant’s needs, an active adaptation that gradually lessens, according to the infant’s growing ability to account for failure of adaptation and to tolerate the results of frustration. Naturally the infant’s own mother is more likely to be good enough than some other person, since this active adaptation demands an easy and unresented preoccupation with the one infant; in fact, success in infant-care depends on the fact of devotion, not on cleverness or intellectual enlightenment. (Winnicott 1992: 237-8)

A successful transitional object (which can also be a phrase or a space of reverie) holds contradictory and simultaneous meanings: it is the not-mother as well as the

mother. (ibid.: 233) The most important thing is that it comforts, that is, it makes reality bearable: it is a good object that balances the bad object. We can import Radigue's two maternal figures – the teacher and the mother – into this schema. Doing this, Mme Roger becomes the good-enough mother, the good object who repairs the actions of the bad object, that is, the punitive and jealous mother. This relationship of damage and repair is agonistic: the two affects wrestle in constant motion – one on top first and then the next one ascendant. Radigue has given me what I have isolated as a sonic artefact but she has made for herself a transformational object.

The sonic artefact as a place of new meaning

How have I reached my proposal of the sonic artefact and, I suggest, its close ally, the transformational object? The sound object (*l'objet sonore*) was originally proposed by Pierre Schaeffer (1966, 2017) as a temporal unit of sound which, when isolated from its source or context, becomes, through a process of reduced listening, an acousmatic sound. For Schaeffer, the pure acousmatic is a sound whose originating source is not distinguishable. Brian Kane traces the historical development of Schaeffer's *objet* from the detachment of cause to one of effect. (Kane 2014: 16) The sonic artefact mirrors Schaeffer's *objet* in as much as we both consider the detachment of sound from its sonic context. And then we part. For me, the sonic artefact is much more than a relic of an encounter by interview, Portelli's "mutual sighting" or the performative utterance of Butler and Phelan. I propose that the sonic artefact is a place where new meaning is made through the practice of listening. While the interview itself is a sound event that involves a performance, the sonic artefact is a nugget of data that occurs within its duration.

I import the concept of the transformational object from the practice of psychoanalyst Christopher Bollas, for whom it is a holding space that can simultaneously hold multiple and contradictory meanings. (Bollas 1978: 13) My interviews produce not only transcribed data, but also sound recordings. The information that each medium – the written and the spoken – conveys is not the same. The non-verbal communications – the coughs, the silences, the parapraxes – carry their own weight of information. While psychoanalytic and oral history theory do recognise the role of non-verbal communications, they do so without reference to any understanding of sonic theory.

By using methodology drawn from the realm of the sonic, I create a more sophisticated sense of the interview process itself. For me, this constitutes another aspect of the enquiries fundamental to an expanded practice of Deep Listening.

The interview itself is a process of modification: it happens in the near-continuous present tense, in the sense that the present is always acting upon the last utterance made. It thus brings to mind what Peggy Phelan, in her interpretation of Judith Butler's "Force of Fantasy" (1990), describes as: "The real is read through representation and representation is read through the real." (Phelan 1993: 2) Both theorists draw attention to the process of transformation that is re-presentation. However, while Phelan and Butler highlight the dynamism of this process, neither considers that the recording might create a discrete object that sits apart from and between the interview's protagonists. The sonic artefact is in this between-space. I use this artefact, with all its immaterial and invisible data, to consider it as a place that transforms listening from a place of eavesdropping to a site where the listener can create new meaning between people, between things, between sounds. As Cathy Lane has said in the context of her introduction to the work of the sound artist/composer Imogen Stidworthy, language and speech are capable of being transformed into a sculptural medium that creates both private and public spaces. (Lane 2008: 161)

Concluding remarks

The beginnings of my conception of the sonic artefact were inspired by my working over Radigue's "*hein*". This was a moment when something changed in the interview. That the story came so early on in our encounter suggests the importance of it to Radigue's own narrative construction. The sounding of the "*hein*" was – in its reaching backwards eighty years – what I describe as a rupture in her narrative. For Hélène Cixous (1976), such a rupture, powered by a libidinal *jouissance*, is a precursor of what she terms *écriture féminine*. This chapter has considered the interaction between methodological tools and traced the emergence of the sonic artefact as a result of the practice of interviewing. In order to discuss the interaction between the sonic artefact as a form of *écriture féminine*, an *écriture féminine musicale*, with liberatory implications for the new

forms of experimental music, we need first to look at the preconditions to this rupture.

Chapter Three:

Theorising the interviews

The first principle in making a living is knowing what you want to do and proceeding to do it until somebody pays you for it.
Pauline Oliveros (1976: n. p.)

In the early 1970s, Pauline Oliveros composed a series of proverbs that were collated for a modern-day chapbook entitled *Pauline's Proverbs* by the performance artist (and her then-partner) Linda Montano. One of them is quoted above. It is an aspirational proverb. Many artists – Johanna Beyer or Maryanne Amacher, as we have seen – were never properly paid, supported or recognised in their lifetimes. Oliveros's proverb resounds with a fierce sense of worth and she brought this into her life's work.

But before we hear the words of the composers, I will apply and develop theoretical concerns that arise out of my methodologies. This, as do the interviews themselves, constitutes the practice element of my research and contains the reflections of my position as an actor in (and activator of) this project. Although the interview quotations in this research are, for reasons of ease, presented in a written form, it should not be forgotten that the interviews exist, first and foremost, as sonic entities and are therefore open to an analysis in respect of their sonic materiality with tools drawn from the sonic arts and sound studies. I emphasise the need to remember this sonicity, with its attendant dynamism and fluidity, of these interview-encounters, their existence as, perhaps, improvised musical, dialogic duets between me and my narrators, each one existing with its own timbres and rhythms, resonances and dissonances. As explained earlier in the Glossary and Chapter Two, I describe the composers here as *narrators*, as opposed to *interviewees*. (Yow 2005: 185) In adopting this terminology I take part in a reflexive criticality that recognises the power relations existent not only in the interview encounter, but also implicit within the language that frames us.

Making space

This chapter introduces and analyses aspects of my composers' working lives and methods to show how they have each created a working space and compositional practice for themselves. Woven through this analysis are two main questions: firstly, how did these five composers need to carve out new areas of work within an already marginal sector of music to make their own music, to become more radical than the other, male, players? And secondly, how does the practice of interviewing help me to hear any final answers?

The answer to this first question is that these composers needed to challenge a pre-existing patriarchal space, in which composition has been historically and structurally gendered as a male domain. Lucy Green, by arguing that music “delineates masculinity, a male mind, a man behind the music” (Green 1997: 114), identifies a situation in which a female exteriority in the world of composition follows as a logical consequence. She situates this problem historically, as an issue in which technology and patriarchal attitudes clash:

Compositional activity after polyphony becomes increasingly separate from that of performance, requiring more control over instrumental technology and musical technique. At its most extreme points, this kind of composition gives rise to a delineation of genius of the transcendent male ego. In the hands of a woman, it threatens the natural bodily submission of her femininity by clearly demonstrating that she has a mind. (Op. cit.: 113)

For Hannah Bosma (2006), Green's argument reinforces earlier research by Andra McCartney (1997, cited by Bosma 2006: 101) on gender structure and gender symbolism within the entire field of electroacoustic music – both in its macro-organisation (for example, its education, financial footing/grants, concerts) and its micro-organisation (studio work, the types of sound employed).¹ In respect of both composition and technologically-based music, women are thus doubly exteriorised.

¹ The exteriority of women within studio, and therefore, technologically-based music, continues. Born and Devine (2016) suggest that the take-up of music technology degrees at UK institutions is overwhelmingly male, with students coming from lower social classes than those on traditional music degrees. This is, they speculate, the legacy of an IT culture that has been historically male-gendered and drawn its recruits from courses that are more vocational than academic in their emphases.

Testimony in this thesis from both Éliane Radigue and Pauline Oliveros support this. Radigue worked, unpaid, as an assistant for Pierre Schaeffer at the Studio d'Essai from the mid-1950s. Oliveros, when asked about her early-career contact with radiophonic and electronic studios during approximately the same period, responds: "That's the boys' world." (Marshall 2016c: 00:28:00) Indeed, in this section of our interview, Oliveros speaks explicitly on her experience, at the San Francisco Tape Center, of how men bond with one another over technology and so consequently exclude women. Bosma goes to the heart of why the studio-based woman is so unsettling:

A female composer is thus perceived as abnormal. She interrupts the status quo and threatens normative (mostly unconscious) ideas about music. Because composition is gendered male, her femininity is called into question. (Bosma 2006: 102)

Bosma's questioning of how femininity is either inscribed or, alternatively, threatened by female participation and virtuosity runs through the history of classical music, its repertoire and its performers. We see it in relation to the nineteenth-century pianist and composer Clara Schumann: Anna Beer recounts contemporaneous commentary on the piano as a suitable instrument for women because "[...] the player remained seated, and therefore modest". (Beer 2016: 231) As late as 1968, Lili Boulanger's winning composition for the 1913 Prix de Rome was commended for its "sturdy masculinity". (Ibid: 255) This anxiety about femininity is acerbated when electronic and computerised technology becomes a key means of production. As technological sociologist and psychologist Sherry Turkle (1986: 41-61) and Rodgers (2015) demonstrate, technology is an area which, despite much female participation, remains a male-gendered domain – a reasoning that reinforces Bosma's identification of the woman composer *qua* abnormality. Thus, Gann can position Oliveros as a "female counterpart" (Gann 1997: 161) to John Cage; while Radigue speaks to me of how Pierre Schaeffer threatens to replace her studio duties with secretarial work, that is, to move her from the privileged area of male activity to one that is more conventionally subservient. And if not anxiety, then female participation in technologically-based music often engenders ambivalence. Frances Morgan (2017b) examines the trope of the female synthesizer player as a pioneer, someone whose exceptionalism marks her as an oddity; she draws our attention to how imagery of technologically-centred female composers has focused on signifiers of their femininity. Numerous photographs of

Radigue, for example, hone in on her long hair or her fingers on her ARP's matrix board. One often-used image shows Radigue with her ear to a conch shell, ever a symbol of the feminine.² Annea Lockwood has fought back against this sexist contextualising:

The piano did represent various things to me. I loved playing it. I loved the feeling of playing it, the experience of playing it. [...] Yes, I loved the instrument for its own sake. I also view it... It's hard to know when my views moved in this direction, but I also viewed it then as a cultural icon from the nineteenth century. Later, I also came to view it as a perhaps constricting, particularly female-constricting cultural icon [...] [The piano was] the approved instrument, like flute and violin, but not cello, and not trumpet and trombone, and so on. The gendering of instruments became more and more obvious to me, and more and more irritating, you might say. (Marshall 2016a: 00:19:30)

Small wonder that Lockwood chose to immolate pianos, or that Oliveros used incongruous photographs to front her albums. One, used on *The Wanderer* (1984) deploys an earlier photograph that had been part of the *Postcard Theater* series. (See p. 128) It shows Oliveros on a visit to the zoo. She is wearing a sola topee and riding an elephant.

While both gestures – piano destruction and elephant-riding – carry multiple meanings, they are also tactics which subvert the gender conformity of practice and of image.³ The basic syllogistic reasoning that Green, McCartney, and Bosma reveal – that if men are identified as composers, then women, by default, occupy a masculine role – is still so potent that Rodgers is able to point out the “ongoing dissonance between the words *woman* and *composer*, or *woman* and *inventor*”. (Rodgers 2015: 13) Gendered deductions of this nature illuminate the thinking that allows Gann (op. cit.) to see Oliveros as the “counterpart” to Cage, rather than a composer in her own, distinct field.

² Jacques Brisseaut's photograph of Radigue listening to a conch shell was probably taken in the mid- to late 1960s. It has been used on numerous occasions, including for the cover of Radigue's 1970 reissued LP, *Vice-Versa, Etc* (Alga Marghen Records 2014).

³ Lockwood stresses to me that her *Piano Transplants* are not destructive acts, but a way of inviting process into the method of (de)-composition.

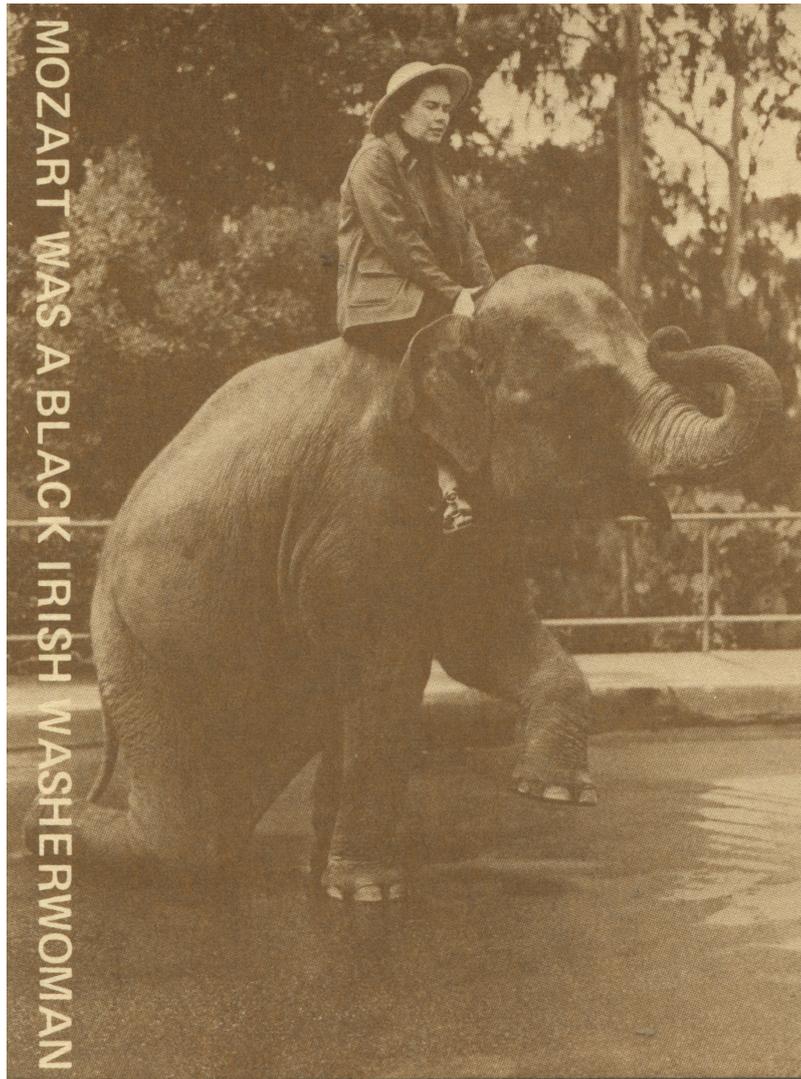


Image 5: *Mozart Was a Black Irish Washerwoman*
Pauline Oliveros and Alison Knowles: 1974. From their *Postcard Theater* series
Photograph: Becky Cohen
© The artists

Hearing the margins

So how does interviewing allow me to hear more fully the situation of women making music within a marginal field? The answer to this second question posed above (p. 125) is to be found in a new manner of listening that I have begun to practise via the sonic artefact and an extended Deep Listening. By incorporating and extending Oliveros's listening into my own listening practice, I hope to be able to honour the difficulty of the composers' journey and so help give greater place to their work than other, previous studies have.

Linking themes: the encounter, the construction of a narrative and the affective interview

As a precursor to presenting interview excerpts in Chapter Four, I shall focus here on three prominent themes that link the five composers and which illuminate structural parallels and similarities in their markedly different ways of working. Having done this, the interview material in the following chapter will be seen to interact with these identified themes.

These themes are:

1. The encounter of the interview: exposure and disclosure, containment and performance;
2. The construction of the narrative and “twice-told tales”; and
3. The affective interview: transference, countertransference, affective space and reflections.

The encounter: exposure and disclosure, containment and performance

It is important to bear in mind that the interviews are always more than an exchange of information between two people. They constitute a practice rendered in an interpersonal encounter in which there is an implicit tension created between the researcher’s asking a narrator for a history and of getting that narrative. In the interview, this tension is expressed as a sonic encoding of knowledge (as opposed to the written oral history transcript) that will feed directly into my formulation of the sonic artefact (see Chapter Five). There is, perhaps, a final tension, that we see in this document in which I use the visual record of written words to relate the sounds of sonic interview material.

Orality vs the transcript: two records of the same event

This is an issue that has concerned many who have worked in oral history. The historian Raphael Samuel (1972: 19) warns of the “mutilation” and “distortion” that occur when spoken words are detached from a transcript. Portelli (1991: 63) laments the freezing of “fluid material”; and Kate Moore (1997: 14) describes the way raw audio material is tidied for textual legibility as a “perversion” that has the effect of stripping away rich

layers of lexical, semantic and social meaning. These defences of the ontological integrity of pure audio have been opposed by many oral historians. Historian Alexander Freund details how, since 1948 and the establishment of oral history as “a formal method”, scholarly guidelines have ensured that “the transcript reigned supreme” (Freund 2017: 33). Freund weighs in on the side of the transcript, arguing that the textual record alone remains the readiest form of access to testimony and that its archiving confers the weight of historical legitimacy to it.

There is merit in both sides of the orality /transcript debate. The spoken word and the written word are two sides of the same coin, two records of the same encounter. The recognition of this dichotomy is not new. I have detailed in Chapter Two Kathryn Marie Dudley’s argument for the “epistemological equivalence” (Dudley 1998: 161) to be granted to transcripts and field notes. Dudley writes from an anthropological perspective and recognises that the two processes of writing and speaking carry different significations. However, none of these historians or social scientists – from either side of the transcript/audio debate – work within a sonic methodology that looks to the materiality of sound itself as capable of yielding new meaning. While I use words to admit interview material into these pages, these written words can never express fully the record of the vibratory space of sonic experience which is the interview itself. They are words unsounded and unperformed. The eye cannot read what the ear can hear. The transmission of knowledge in an interview is via a sensuous route: the body *and* the ear are both present: they both listen and they both sense the capacity of sound to be simultaneously present and ephemeral. The embodied comprehension of – for example, gestures, tears, glances and gazes – are peculiar to the encounter and resistant to the written word. This means that the epistemology of sound – how it constructs and transfers, from one person to the other, a cogent theory of knowledge – operates in a sensuous dimension. A written transcript will not convey the deeper meaning of Radigue’s “*hein?*”, or the flatness of affect with which Joan La Barbara speaks of a traumatic event. The experience of the interview itself, the emotional and spoken relationships that it maps, the tensions it creates, and, most specifically, the topological mapping of the sonic artefact, itself an encounter-instigated sounding object that frames meaning, marks how this work diverges from previous approaches to knowledge-capture within the interview.

Exposure and disclosure

Portelli's powerful description of the encounter between a researcher and their narrator as an "inter/view" (Portelli 1991: 31) highlights the crucial mutuality of a meeting at which the researcher hopes to elicit significant information. This mutuality of the inter/view means that I, the researcher, expose myself on some level, too: this exposure can be measured in various ways. An information-based exposure might indicate the extent (and limits) of my knowledge and critical engagement with certain topics that indicate my seriousness and gravity (or lack thereof) as an interlocutor worthy of the time that my composers grant me. A socially-based exposure might indicate the mutual friends and acquaintances that I share with my narrator. Both types of exposure are a way in which I choose to situate myself inside a rhizomatic or horizontal history. (Neset 2005; Džuverović 2012) By engaging in these acts – by telling, for example, La Barbara that I know certain composers whom she has worked with, or that I had heard her composer-husband Morton Subotnick speak in London only a few months beforehand – I am placing myself in my narrator's personal – if distant – orbit.⁴ No longer an atomised stranger, I enter their universe.

Framing the interview: psychoanalysis and oral history

In the clinical situation of psychoanalysis, much has been written about the environment of the encounter.⁵ Even from the beginnings of psychoanalysis, the importance of this staging or framing has been recognised: Freud, and many subsequent analysts, write of the consulting room in which the analyst and the analysand meet as a containing environment that will hold the melange of material that comes out in analysis – spoken words, transference currents, phantasy; Melanie Klein used continuity notes for the playroom space to which her child-patients came. There is a wealth of psychoanalytic literature devoted to the setting of the clinical practice. R. Horacio Etchegoyen provides a concise summation of the main currents of these texts, moving from the historic

⁴ My first meeting with La Barbara was in London in April 2016. In an unrecorded conversation that was quickly warm, we shared information about various personal friendships we had and how mutual ones that we shared intersected. This was also a way of establishing how we had, in our separate worlds, both seen the need to draw boundaries around our professional and personal lives.

⁵ I use the word "environment", in an idiomatic way, rather than as an indication that I am following through on the theories around the holding environment that Winnicott (1963) developed in his psychoanalytic theory and practice. However, I acknowledge a certain porosity in terminology here: with a well-framed encounter, a holding that approximates to Winnicott's environments can be surmised.

psychoanalytic writings of Freud, to Alice and Michael Balint from 1939, to more recent works by Madeline and Willy Baranger from 1961-62 and José Bleger (1967a) and from Joel Zac. (Etchegoyen 1991)

All these accounts concentrate on various elements of the encounter: the location of the room, its contents, its quietness, its relative immutability. For Bleger and Zac respectively, these aspects are non-process elements or constants that precede (and enable) the process of analysis and they, thus, sit in opposition to the variables that are brought into them. These non-process elements or constants define the frame (*encuadre*) in which an encounter takes place.⁶ In the case of my research interviews, aspects of their prior non-process include my research-initiating interest in experimental music and allied areas, the first contacts and responses between me and the composers and so on. The very continuity or stasis of the room (and its resident analyst) constitute a place – both concrete and psychic – of safety, of survival, of containment, for its human occupants and the mutable disclosures made within it. It is thus a space of psychic exposure, of psychic abreaction and repair and therefore a space of potentially transformational process. For Christopher Bollas, the frame/setting that Etchegoyen *et al* identify functions as a transformational object that has the power to “alter self experience”:

It is an identification that emerges from symbiotic relating [between mother and child, where ‘mother’ is understood more as a process than an object], where the first object is ‘known’ not so much by putting it into object representation, but as a recurrent experience of being – a more existential as opposed to representational knowing. (Bollas 1987: 14)

The encounter that the oral history interview represents is not the same as clinical practice: no therapeutic work takes place and nor is it sought. However, there are important parallels to be made. It is an ethical encounter, in which I listen and try to accurately reflect (and reflect upon) what my narrators tell me. The interview offers a frame that will hold what the narrators speak of. It is place of disclosure, and it is a place of transference and of countertransference. (Figlio 1988; Roper 2003) These twin processes, both unconscious and both deeply communicative, are situated at the very

⁶ Etchegoyen translates Bleger’s *encuadre* metaphorically as “setting”: I retain its primary meaning of “frame”.

heart of psychoanalytic discourse. Stretching across the space that we share, they are unavoidable filaments threading each person to the other, allowing us to parse one another according to their own histories, fantasies and phantasies.⁷ The transference dynamic means that I am implicated in the interview, in every part of it. I am in the practice as much as each one of my narrators is. In this aspect, the interview becomes a process of co-creation: it would not exist without either one of us and the material admitted into the interview would remain unformed or in abeyance, a latent testimony, an object unmade. The knowledge produced is a result of this encounter.

The construction of a narrative: narrative structure and “twice-told tales”

As an oral historian, Portelli is interested, like linguistic structuralist Vladimir Propp (1968),⁸ in the morphology of the narrative. Portelli expresses the constant reshaping of narrative in the phrase “twice-told tales”. (Portelli 1998: 24) The narratives in this research are also subject to morphological change. Because these interviews are sonic narrations, told in one room, I would like to make a link to another chamber, another container with its own mythology in the narratives that belong to the intersecting worlds of sound studies and composition. This room is the anechoic chamber at Harvard University that John Cage visited in 1951 and his often-told story about his experience in it bears the signs of its own constant re-creation. Cage went to this room expecting to hear absolute silence; instead he heard “two sounds: one high, one low”. (Cage 1961: 8)⁹ The first, Cage was informed by an engineer at the university facility, was the noise made by his own nervous system. The second was the sound of his blood circulating.

⁷ In psychoanalytic usage, a fantasy (Sigmund Freud) is a *conscious* construct (for example, a day-dream), while a phantasy (Melanie Klein) is an infantile, *pre-conscious* mental production. The two definitions thus draw attention to conscious (ego) functioning as against a pre-conscious process in which differences between inner and outer worlds are blurred. It must be stressed that one does not grow out of phantasy because of growing up; all psychoanalytic theories consider the juxtapositioning of unconscious and conscious mental processing occurring in tandem.

⁸ First published in the USSR in 1928, Propp’s structuralist approach to narrative does not, however, postulate there to be an infinite number of types of story. His thesis is that, while there exists a flexibility of narrative form, there is a finite number of categories of stories and, whatever type of story, it will be constructed of identifiable elements or building blocks.

⁹ The singer and scholar Gelsey Bell views Cage’s story as a “self-propagated myth” (Bell 2015: 23) that nevertheless can still thrill the reader in its retellings. Bell’s view is that what Cage heard was not the sound of his body, but that of tinnitus.

For Cage, this marked the realisation that silence does not exist. The experience provided Cage with a conceptual basis for *4' 33"* (1952). For Joe Panzner, Cage's autobiographical anecdote is a "parable of performance as creation rather than reproduction". (Panzner 2015: 3) In utilising Panzner's description of the story, I want to add the element of dynamic activity to offer the situation of the interview as a place of performance and creation, of dynamism and connections. As we shall see, even a narrator's re-performance of replicated stories is never static. Rather, their re-performance consists of what was historic material reworked for the present. The re-performance always creates, through the very performativity that allows its expression, a new aspect that is continually renewed at each telling.¹⁰

Portelli (1991: ix), as we saw in Chapter Two, identifies a process of creative narrativity at work in the way that narrators engineer "imaginative errors" in their displacement of dates, people, and the other factors. These errors do not invalidate a story so much as situate the teller at the centre of their story: they are a feature of a subjective narrative. Panzner identifies the same process operating in Cage's account of the anechoic chamber:

[...T]he inexhaustible richness to the tale of the anechoic chamber, one that far exceeds Cage's own telling or the recent attempts to challenge the veracity of his account. Cage's recounting of the anechoic chamber experience is a parable, a parable about *events* – the appearances of difference. After the anechoic chamber, Cage is a new man. The events of the chamber have changed him: they have refashioned the way in which he can approach the world.
(Panzner 2015: 1-2)

Panzner's designation of Cage's anechoic chamber story as a "parable" is enlightening because the description draws attention to the fact that a narrative is never fixed; instead, it is rather continually created. Like a parable, the narrative is applied to each occasion of its telling and the variances will, each time, illuminate a new aspect of the narrator's tale and their situation. I will illustrate this with reference to a thrice-told tale by Radigue later in this chapter. Her story, like that of Cage, is one that is told and retold, and whatever its internal variances, it is still true.

¹⁰ I shall return to this idea in an ensuing discussion of the narrative structures and strategies employed and deployed by my narrators.

The morphology of “*Hein, Éliane?*”

The two tables mapping Radigue’s childhood tale (see Appendix) are schematic illustrations of the fluidity of narrative. This chart focuses on the section of Radigue’s story in which she relates how, as a young child, she found her mother to be severe and punitive.¹¹ Radigue, early on in our interview, tells me that her mother would terminate discussion by saying, “*Hein, Éliane?*” Radigue then proceeds to give an example of the maternal “*hein*” in which the mother attempts to sever the relationship that the young girl has with her beloved music teacher, Mme Roger. The sounding of this “*hein?*” was a key moment in my interview and I isolate these two words – “*Hein, Éliane?*” – as an entry into the space of the sonic artefact. (See Chapter Five.) There was, I wrote in my research journal after the meeting, a “real emotional” charge to our interview and I was struck by what the “*hein?*” moment communicated.

To enter my own narrative, I had a narcissistic pride in being given (what I thought was) a scoop, which is to say, a once-told story. So, it was with some dismay that I later found out that Radigue’s “*hein?*” story is not once-told, but (at least) thrice-told. As far as the public record goes, Radigue had already (by the time I met her in 2015) related the story to Bernard Girard (2013: 27-28), for his book of interviews with her, and, the following year, to Hans Ulrich Obrist,¹² this latter occasion being a staged interview at the Fondation Cartier in Paris.

For Portelli (1998) such repetition – re-performance – is not a reason to dismiss the twice-told (or thrice-told) story as a static copy. Rather, the story’s continual remodelling in the hands of its narrator is a sign of its dynamic singularity. He stresses that oral history as a cluster of genres – “a composite genre” – that is drawn from numerous, interlinked fields of enquiry: folklore, linguistics, anecdote, and the influence of oral and written discourse (Portelli 1991: 23-25). Even though oral history narrative falls back on the pre-existing narrative structures that boundary its formation, its difference is characterised by its own “composite internal structure (a genre of genres), and for its peculiar cultural positioning”. As such, it calls for a “stratified” analysis in

¹¹ See Chapter Two (pp. 119-120) for Radigue’s verbatim account and, for its context in the narrative, Volume II (pp. 88-90).

¹² While the “*hein?*” itself is not uttered in Obrist’s interview, Radigue nevertheless identifies her childhood as a place of loneliness and sadness (her mother is implicit in the anecdote), which is illuminated only by her “marvellous” teacher, Mme Roger.

which each genre is identified as well as what Portelli terms “genre in the space between” the narrator and the oral historian. Adopting a strategy that acknowledges the work of Propp (1968), Portelli proposes that a historian can regard an oral history narrative in terms of four different positions or orientations: the performance-orientated narrative; the content-orientated narrative; the subject-orientated narrative; and the theme-orientated narrative. (Portelli 1998: 27) Sometimes the nature of the narratives can blur the distinctions: which narrative orientations do Cage’s anechoic chamber story or Radigue’s “*hein*”, both multiply-told stories, fall in to? Cage, as an adult, has more agency than has the child Radigue in each of their respective stories: he acts; she is acted upon. That said, the subjects of Radigue’s story – her mother and her music teacher – propel the story in the absence of Radigue-as-subject. Cage’s is content-orientated; Radigue performs her story, and dramatically so.

The differences in how Radigue narrates and structures her “*hein?*”/mother/Mme Roger story are explored in the tables in the Appendix. On Table 1 (pp. 226-228), I have mapped the story’s elements according to three narrations given to Girard, Obrist and me. Two of the details recur through each of the three interviews: these are Radigue’s childhood passion for classical music, and the expression for a deep affection for Mme Roger. In the interviews conducted, separately, by Girard and me, other details are shared: the jealousy of Mme Radigue (for Mme Roger), the conspiracy hatched by Mme Roger and the unnamed mother (here, coded as M2) of Radigue’s school friend, the significance of Roger and music as the gateway to a new world. In her interviews with Girard and me, Radigue structures her story as a performance: she finds happiness with Roger; disaster is brewing; her mother stops the lessons (“*Hein?*” 2). In these two interviews, Radigue varies the narrative structure slightly – the admonishing mother who wields the power (“*Hein?*” 1) comes in earlier in my interview than she does in Girard’s, where the blows – the two “*Heins?*” (1 and 2) – come in quick succession.

If we condense the elements of Radigue’s story of her childhood, as in Table 2 (p. 229), we see the units of her narrative creation clearly falling into an order which is very similar across all three interviews. What this chart shows most clearly is a series of oppositions within Radigue’s narrative arc: the bad mother (Mme Radigue) versus the good mother (Mme Roger); the identification of a love-object (music) and its loss at a single stroke (“*Hein?*” 2). This is followed by the narrative’s resolution: a magical

ending (love-object restored); a new family (implicit in the mention of Roger's mother and daughter) and a ticket to another life (love-object as escape mechanism).

Radigue's structuring of her story owes much to pre-existing narrative genres. It is, like the story of Cage that Panzner designates as a "parable", fabulous, in the etymological sense that it arises from story-ness – the *fabula*. But beyond the world of narrative theory, it is also a *fabula* of lived experience. As Portelli details in his account of the death of Luigi Trastulli, anecdotes that are placed within a life history are part of a "work in progress, in which narrators revise their image of their own past as they go along". (Portelli 1991: 61) Because a story exists in time, it will "undergo additions and subtractions with each day of the narrator's life". (Ibid: 60). The consistent inconsistency of narrative is a central feature of myth-making and its morphological straining towards ever-new forms (Propp 1968) as well as what Freud (1976 [1900a]) identifies, in the continual chain of signification, as the process of overdetermination. Cage's anechoic chamber story is a myth in the making, as is Radigue's "*hein*", the rhetorical syllable with which a mother ruled her daughter. And they are both true.

Portelli is alert to the fact that the way in which an oral testimony is shaped is open to analysis from linguistic, anthropological and structuralist fields. These are areas of inquiry tangential to the theoretical studies stemming from oral history and psychoanalysis. And while there is scope for interdisciplinary research in joining these methodologies together, it is these two latter fields (rather than those former routes which lead towards discourse analysis) with which I am concerned. Like Portelli, I reflect on the narrative structuring of the interview as well as privileging the audio over the transcript as the original testimony of the interview. This is done as a way of both accentuating the listening practice that hearing testimony involves, of delineating a what I identify as a third space in which communications reside and of deriving new modes of meaning from the shared speaking, listening and hearing that the interview involves.

The third space

While this third space is a creation of the encounter between two people, it is one in which both participants are bound together in a listening experience that the psychoanalyst Édith Lecourt characterises as "one of *omnipresent simultaneity*".

(Lecourt 1990: 211, her italics) Both speaker and listener are engaged in a complex simultaneously created mesh of uttering, signifying and decoding. Meaning is archaeologically ordered in the sense that it is stratified through layers of nuance, idiolect, conscious and unconscious assumptions, of which the manifest (one might say superficial) meaning sits on top. This sonic complicity of the listener with the audible is described by Voegelin in a way that captures Lecourt's "*omnipresent simultaneity*" dynamic of perception, audiation and understanding: "[I]n listening I am in sound, there can be no gap between the heard and hearing... [...] [T]he listener is entwined with the heard. His sense of the world and of himself is constituted in this bond." (Voegelin 2010: 5)

Narrative impossibility

In conducting my interviews, I have endeavoured to conduct life-history interviews. I ask all my narrators about their families and their upbringings, their childhood, their first contacts with music, about people who enabled their progress and those who stood in their way. I ask them about their working methods and the strategies that they have devised to shape a space to think and work. I ask them questions about how they began to be able to imagine themselves as working musicians, composers and artists and the way they all arrived at their separate realisations. I ask them about the economics of being an artist making a living and the networks that have supported and sustained them. I ask them about the position of being a woman in a compositional and artistic space that is too-often gendered as a male space.

In return, I have been generously gifted a large amount of information. Ellen Fullman describes the point at which she feels validated as an artist for the first time in her life. In taking sound down to its most granular level, Éliane Radigue speaks of the point where sound is no longer solely sonic but has translated itself into a physical quantum. Joan La Barbara speaks of her journey – her self-instigated rupture – from classical singing to the radical resoundings of extended vocalisations, as well as an unwarranted attack, in a West German hospital and at a time of great personal sadness, on her ability to be both artist and mother – an attack, in other words, that had in its sights metonymic an either/or dimension to the female capacity to create. Annea Lockwood describes a journey across imperial territories, from one motherland (New Zealand) to another (the

UK) and, finally, to a third land (the US). This last move (“Pauline knew I was dying to get the States”) is one that she describes as “deeply liberating” (Marshall 2016a: 00:43:00 and 01:02:30) on multiple levels, one of them being a very deliberate dilation of her compositional soundworld as she brings into audibility sounds that are ordinarily too-distant to the range of human hearing, a metonymic action that extends the range and meaning of a listening experience as she places the subjective self into a deeply resonating soundworld. Pauline Oliveros describes how, in *To Valerie Solanas and Marilyn Monroe In Recognition of their Desperation ---* (1970), she composes a deep structure that is based on the acute and sensitive listening that neither Solanas or Monroe received in their lifetimes. *To Valerie Solanas and Marilyn Monroe* could be read as a composition of anguish, of anger, of reparation. Aspects of some of these five composers’ stories have been told before – in other interviews, with other writers – and some of these stories have the effect of bursting out, unannounced. The composers listed above have had widely varying degrees of contact with journalistic/critical interest and engagement in their works. Even the most conventionally ‘famous’ of them – Oliveros – has still had too few critics accurately reflect and analyse the status and reach of her hugely important corpus of work. In doing these interviews, I have stayed close to the methodologies of oral history that call for a continual attention to the structuring of the narrative and its overt and covert languages and, in turn, ask for an attentive reflexivity on my part.

And yet in asking my narrators for their life histories, I am also asking of them an impossibility. As soon as a story begins, it falls into a genre. The life story interview elicited by oral history is, as Portelli stresses, a unique document, but it is also an artificial one:

What is spoken in a typical oral history interview has usually never been told *in that form* before. Most personal or family tales are told in pieces and episodes, when the occasion arises; we learn the lives of our closest relatives by fragments, repetitions, hearsay. [...] The grandparent who takes a grandchild on his or her knees and tell the story of his or her life is a literary fiction. The life story as a full, coherent oral narrative does not exist in nature; it is a synthetic product of social science – but no less precious for that. (Portelli 1998: 24)

The artifice of the oral history interview does not endanger it, for it remains a dynamic form. Narrative elements within it will occupy space in varying degrees of proximity to

other elements: we see this in Tables 1 and 2 (see Appendix), which examine the shifting points in the narrative neighbourhoods of Radigue's "*hein?*" moment and the formation of the story that is crucial to her early life. For Portelli, this very dynamism of the narrative points to the shift of meaning that occurs in the telling of tales: oral history he writes, "tells us less about *events* than their *meaning*" (Portelli 1991: 50). To apply this reasoning to Radigue's "*hein*" story, we see from Table 1 (pp. 226-228) how elements of the account shift as she rearranges the sequence of her story for each listener. Portelli points out that the "[o]rganisation of the narrative reveals a great deal of the speaker's relationship to their history" (ibid). In our interview, the punitive mother is accentuated – she appears earlier than in the interviews given to Girard and Obrist – as an almost-mythic figure who is routed only by a magical solution: the secret plan that Mme Roger and the unnamed mother (M2) make. The schema is not meant to privilege a formal literary analysis over any sonic one: the placement of the "*hein?*" ("*Hein?*" 2 – the refusal of lessons) and the magical solution are close together for a reason: that, even after nearly eighty years, a child's memory of the near loss, the very collapse, of a new world – of love, of excitement, of music, of escape – is too much to bear. In this sense, the "*hein?*" operates in several temporalities, it is heterochronic: it contains too much affect to be left to stand unresolved.

The action of a narrator's memory and the nature of their audience add further variables to the story-telling. Simple facts – the anechoic chamber, the *hein?* – are, to some extent, moveable points in the spatial arrangement of each narrative. Each time a point shifts, a new bond or tension with other points is created, thus bringing into the field of interpretation a new structure of space: for Bernard Burgoyne (2011), working within psychoanalysis, this continual restructuring generates a history of, perhaps, desire, of disappointment, of a symptom. For Etchegoyen et al, these points become dynamic elements in the process that leads to disclosure. Within the deep sonicity of the interview, each point is also an audible triangulation of a relationship that links narrator and listener.

The affective interview: transference, identification, affective space and reflections

I have spoken of exposure and disclosure within the interview. To this I now add a third category, which I shall term as an affective exposure. This concerns the lasting affects generated within me by the interviews. I admit these affects into the larger scheme of this research as an indication of two processes: the first, a psychoanalytically-orientated working over the interview material and the emotional currents generated by the interview; and the second, as evidence of my continual reappraisal of my role within the interviews. If the two earlier types – exposure and disclosure – involve a projection of myself (towards my narrator), then the affective exposure is focused in the alternate direction: my introjection and absorption of what the narrators give me. The affective space can be a place of working data over. The historian Carrie Hamilton (2008) speaks of this while she was researching the roles of women involved in the Basque nationalist movement. For her, an analysis of her dream-material, which expressed certain ethical complexities relating to her work, was a way of recognising the affective significance of her work to her subjectivity. This dream-work – to use Freud’s phrase (Freud 1976 [1900a]) – will be joined to the larger discussion of the psychic space of the sonic artefact in Chapter Five.

A good tale well told can have a sonic resonance, a psychic materiality, which lingers long beyond its telling. A narrator will tell a story, to situate themselves in it. In an interview, they may seek to entertain, to inform (Oliveros: “Well, I would like to educate you!”), to shock, to swerve away from a subject that, for one reason or another, displeases them. The oral historical document is, above all, a human document in which subjectivities are closer to the surface than they might seem to be in an exchange of facts. As Portelli points out: “[...] the inherent nonobjectivity of oral sources lies in its specific intrinsic characteristics, the most important being that they are *artificial*, *variable* and *partial*.”(Portelli 1991: 53, his italics) At times, it can seem as if a story bursts out, unplanned by the narrator and unanticipated by the interviewer.¹³ In a few

¹³ La Barbara’s story of her experience of a miscarriage while on tour in West Germany is an example of a story that bursts forth in this way. (Marshall 2016b, Vol II: 292-296) I write about this in depth in Chapter Four. Listening to my interview with Radigue, I conjectured that she avoided a question about the sounds of the aeroplanes during her childhood in Occupied France. Writing now, I speculate that I asked this question too soon in the interview, not thinking through the complexity of memories of Occupation as they are still experienced in France. Enemy

cases, stories were presented off-recording (so, literally, off the record): a strategy for semi-disclosure, but also evidence of how an empathetic relationship stretches beyond the interview situation, something that can make the boundaries of the encounter porous. An example is found in my first meeting with Radigue. After the recorder had been switched off, and after a relaxed conversation about incidental things, Catherine Facerias (my translator) and I were preparing to leave. By the door to her apartment, Radigue turned to me and asked: “You know about my son?” “Yes,” I replied. Yves had been killed in a car crash in 1989. *Kyema*, the first section of Radigue’s *Trilogie de la mort*, is dedicated to him. Her eyes filled with tears and we contained a silence that acknowledged his absence.¹⁴

Among his eight types of interpersonal silence, Salman Akhtar identifies what he terms as “regenerative silence” (Akhtar 2013: 34). He frames this “regenerative silence” within Winnicott’s idea of “simple not-communicating” (Winnicott 1963: 183), in which a transitional state of experience is shared and communicated. This communicative silence that I shared with Radigue I would classify as regenerative. For both Winnicott and Akhtar, this is a personal, replenishing silence, a created space in which something is held between people. Radigue has, no doubt, told the story of Yves many times to many people. Yet however told, this story and other ones – twice-told, thrice-told, or more – are lexical examples of affect, of a past now channelled into the present.

Affect – and its attachment (cathexis) of emotion or energy to objects – is the material of transference and countertransference. These twin processes are integral to any meeting and these meetings are, in and of themselves, a multiplicity of relationships. It is the relationship between the interviewer and their narrator, psychoanalyst Karl Figlio writes, that joins them into a group, generating a new subset of at least three relationships. He identifies these main three relationships or groups as:

that on which his or her sample gives testimony; that to which the informants and the historian belong; and that made up of the informants,

bombing in Paris did occur, but with nothing like the intensity experienced in the UK, stories of which were passed down to me, thus becoming part of my historical narrative.

¹⁴ Because Radigue’s music and, especially the *Trilogie*, focuses on transitioning sounds, it is possible to make an overt link between the sonic and other ideas of transition. By placing the *Trilogie*, and its dedicatees, within the ontology of Tibetan Buddhism, Radigue accentuates an ever-lasting process of sonic existence.

the historian and the audience for the historical project. (Figlio 1988: 120)

These relationships are then joined by others: the “phantasised relationship between the historian and the larger group” on which the informants report as well as also between the “audience and the larger group”. (Op. cit.: 120) The elasticity of this relationship is found in transference. As Roper (2003: 21) writes: “Transference occurs in all interviews, the interview being by definition, a relationship. Once this is recognised, the question then becomes how the unconscious processes operating within an interview can best be recognised and understood.”

So how might an interviewer use their understanding of the narrator’s transference and of their own countertransference to hear the conscious and unconscious communications that are generated by a meeting? If my interviews took place within an analytic situation and if I were a trained psychoanalyst and if my narrators were analysands, then these twin currents could, as Figlio says, “be worked through” as part of the therapeutic process (1988: 126). But the fact that the interviews are not conducted within a clinical dialogue does not invalidate the transference.¹⁵

In sonic terms, the interviews thus resonate: they re-sound in me even after their completion. I am aware that I react to aspects of the narratives the composers tell me on a conscious level. Accounts of Radigue’s “*Hein?*” story and of La Barbara’s miscarriage shock me; Fullman’s account of her memory of her father’s studio I find loving and full of hope; Lockwood’s precision of detail and reflection is impressive; in Oliveros’s testimony, I am aware of an undercurrent of a multifaceted exclusion that at times sounds loudly, at other times is more *sotto voce*. These all engender emotional responses in me. There is a play of projective identifications and introjections, in which narrator and researcher are joined together in conscious and unconscious communication. Yet I find that some strange anecdotes stay with me. One comes from Fullman talking about her fledgling steps in beginning a life as an artist, having by this time graduated from college, and now trying to make ends meet. She is paying her bills by working at a restaurant. She speaks about how upset she was when she loses a job in its kitchen for –

¹⁵ Akhtar adds the pivotal issue of consent here. The analyst, outside of the consulting room, does not have the consent of the speaker to make analytic interpolations. (Akhtar 2013: 151)

a mistake – dropping eggshells in a cheesecake mix. If the presence of laughter can be read as a making light of the event, Fullman was not upset when she told me:

“They fired me! [...] They fired me! I don’t want to make this public information. They fired me and, because I didn’t get two weeks’ notice, I filed for unemployment!”¹⁶ (Marshall 2015a: 00:56:30)

The identification and decoding of unconscious communications – through processes of transference, projections, introjections – is a continuous mode of enquiry within psychoanalytic literature. Analysts isolate these communications as a way of seeking deeper layers of meaning and signification in the utterances of their analysands. I wonder, after conducting each interview, how well I absorb, ward off, or understand their deep meanings, even as I understand the multiple layers of communication. The interviews have an effect on me, a lasting resonance. The effect could be summarised through an anecdote that oral historian Mary Stuart tells from her own experience of interviewing, when she asks her narrator (who had lived at a convent) how she found the experience of being interviewed:

She replied, “And how was it for you, Mary?” [...] I was taken aback by this comment. It may have been a polite response to my enquiry but it is an insightful one. *No intimate research moment can be one-sided.* I did explain to her some of the changes I had experienced over the months I had spent at the convent. *This interactive experience is a dimension which needs to be incorporated in any research project if we are to make proper sense of what the “outcomes” are.* (Stuart 1993: 82. My italics)

A mutual sighting

With the aim of offering a potential answer to the question “And how was it for you?”, I would like to consider my thoughts, writing and feelings after interviewing Fullman. Hers was the first interview I conducted and so I was alert to my own thoughts about how this encounter would be different from other – journalistic – interviews I had conducted in the past, especially in terms of the enormous amount of information I was asking Fullman for – the account of a life, of its work. I was concerned about the dexterity with which I might respond to her testimony, all within the real-time

¹⁶ Fullman did not ask that this section be deleted from the interview.

constraints of the interview, in terms of listening acutely enough to be able to ask the right follow-up questions at the right time – in short, how I was going to manage and shape an interview, which although planned and prepared for, also had to contain an improvisatory element. Writing now, in retrospect, I see that my concern with this shaping comes from an editorial background in which I, as questioner and the post-hoc writer, control the form and flow of the narrative product.

In the hours after completing my Fullman interview, I wrote up some impressions of the encounter in my research journal:

From the moment we began recording, Ellen was very clear and lucid – talking about her family and Memphis background, her education and, later, the importance of Pauline Oliveros as a mentor. (Their joint project and later CD, *Suspended Music*, came about because Pauline sent Ellen a postcard reading: “Let’s collaborate!” So they did.) She emphasised a number of times that so many people get written out of history because, whatever they do to enable an artist to create something, they are not, for one reason or another, credited. Bob Bielecki, a sound engineer and, in Ellen’s phrase, a “technical genius” is one. He stands back from the spotlight but he is someone who appears in so many people’s work, La Monte Young and Laurie Anderson being two of them. [Fullman] is keen that people like Bob are credited for they are an important part in many stories.

[...] I spoke at the end of the interview about how there is very little written on Ellen out there, she said, quietly, that she is not mentioned in Kyle Gann’s *American Music in the Twentieth Century* (1997), which is a standard college textbook, at all [...] I said that as part of my project I want to make sure that composers like Ellen become – firmly and indelibly – part of the history of music and that their legacies are protected. [...] I very much hope that my research will encourage others, artists, curators, researchers, to take up not only Ellen Fullman, but others I am writing about. This was always the starting point to my PhD proposal – to write the unwritten history before it is too late – but now I have started, I realise that I have a personal duty to the artists with whom I speak to make this happen.¹⁷

¹⁷ In hindsight, my usage of Fullman’s first name in my journal shows an ambivalence in my relation to her: is she simply a narrator or, perhaps, a friend in the making? In the excerpt quoted, I am writing in an informal way: text written for private reading in a journal is more intimate, more unguarded, than it would be for publication. I notice that my later journal entries for other composers follow the same practice.

Strengthening the network

Fullman's recognition that the facilitators to artist's projects are so often forgotten by history is right. Too often, the creation of a composition is treated as an entity that is *sui generis*, springing into being without any supporting economic or social context. One can link back to Linda Nochlin's "subjective distortion" (2015: 42), as a process that is blind to, or obscures the existence of the social scaffold that supports the conditions of possibility for the creation of work. Fullman's democratising instinct is a just one that, I suggest, springs from an understanding of the necessity of accurate recordkeeping. In her testimony, Fullman will acknowledge the help and guidance of various important mentors in her career – Phill Niblock, Bielecki, Oliveros, among others. This will to acknowledge the help of others I see replayed by all my narrators: in the categories of important teachers (Radigue, Fullman, La Barbara, Lockwood, Oliveros), partners (Radigue, Lockwood), artistic communities (Lockwood, Fullman, Oliveros) and helpers (Radigue, Fullman, Lockwood, Oliveros). But among all my interviews, Fullman stands out for her meticulous tributes to her advisors, mentors, helpers. Put into the context of her awareness of a lack of focus on her own work to date, I read her record-keeping as stemming from an admirable desire to play fair in a system that is not fair. I also understand that her naming throws out an implicit challenge to me: will I let her down, or will I play fair? Either way, I have entered the network, become a point within a topological space.

Lisa Tillmann-Healy's (2003) ethnographically-based friendship-as-method is identifiable in the acknowledgements that the composers pay. To go further down the ethnographic path, one might also speculate that a capacity to acknowledge others is a characteristic that describes female networking more than male networking and is indicative of the different ways of working that Nochlin herself identifies. Social scientists Michael Szell and Stefan Thurner (2013), for example, have proposed that women network in clusters and with more communication partners than men have.

These routes open potentially interesting directions in research. However, I see a historical imperative in these acknowledgements as constituting an explicit system of redress for the slights and omissions that have kept the work of female artists away from the correct recognition that is their due. These acknowledgements are social ties that

form a soft network that supports those who have been marginalised by the traditional, hegemonic networks, in which historical structures of exclusion replicate. Thus, in the example of Lockwood: that she is a composer in an experimental area of music and not a classical area is not enough to protect her from the unaddressed sexism we have seen that were at play in the Scratch Orchestra, and that we can therefore surmise are to be found elsewhere. Lockwood's escape velocity from this is supplied by contacts with Oliveros. And in Oliveros's own case, a similar trajectory had already been played out: she worked in a revolutionary area (the San Francisco Tape Center) but the men bonded around technology, with the effect of her feeling excluded. She ends up working late at night by herself at the Center, teaching herself how to use the equipment. It was a tactic that, she says, gave her "psychological safety" She explains this safety, a survival mechanism, in this manner:

Louise Marshall: What do you mean by psychological safety?

Pauline Oliveros: Well, that my dignity is not impaired as a human being, as a person and as a woman working alongside of men; that there isn't [sic] any discriminatory feelings that would cause me to be insubordinated or feeling less than, or excluded. Exclusion, you know. The thing about technology is that men always bond around technology and the bond is very strong. They lock in to talk about it and experience it without realising that they are locking people out.¹⁸

[...]

Louise Marshall: In terms of what you were talking about feeling valued, feeling validated, and feeling not subordinated in anyway, even unconsciously by the guys: was this a conversation that you had to have overtly with Morton [Subotnick] and Ramon [Sender]?

Pauline Oliveros: No, it was not.

Louise Marshall: It was never out in the open?

Pauline Oliveros: No, it was not. They were very supportive of me, they really were, but at the same time, that male bonding took place. *It is just programmed, you know.* (My emphasis) (Marshall 2016c: 00:29:00).

¹⁸ Oliveros: "Men have a way of bonding around technology. There seemed to be an invisible barrier tied to a way of treating woman as helpless or hapless beings." (Bernstein 2008: 88)

These assumptions – what is “just programmed” constitute a frame that needs to be broken. I shall speak more on this in the following chapter.

Inside the affective space

Affect is registered by a researcher in one other significant way: their unconscious. That an interviewer might dream about their narrators – and the circumstances of the oral history work – is a way of illustrating how porous the boundaries of human encounter are. It is not uncommon for narrators to relate their dreams to researchers. The anthropologist Marjorie Shostak (Roberts and Perks 1998: 389) describes how one respondent, a woman from the !Kung tribe in Botswana, would structure each day’s narrative around recent dreams. Alistair Thomson’s oral history with Anzac soldier, a veteran of Gallipoli, details the older man’s vivid dreams which re-enact an endless trauma (op. cit.: 249). However, it is more unusual for researchers to admit their own dreams to scholarly scrutiny, and this is possibly because it is hard to rigorously and satisfactorily critique dreamwork in a public forum. Since 1900 and the publication of Freud’s dream book, dream analysis is firmly set as a tool for probing the unconscious, a method for latent psychic material to make itself manifest.

Dream space as affective space

Historian Carrie Hamilton (2008) is unusual in her willingness to use her dreams as a method of looking at her own role within her research. She provides precedent for this in a paper which examines the complex sets of identifications that a feminist researcher might import into an oral history interview, because of their prior commitment to feminist credentials. She writes:

“[...] I had to come to terms with my own desire to identify with the narrators through their tales of victimhood, a desire reinforced by my intellectual formation in feminist theory and women’s history, with their traditional biases towards treating women as victims or survivors of (predominantly male) violence.” (Hamilton 2008: 40)

Hamilton is conducting interviews with women involved in the Basque nationalist movement: some of them have had active, though unspecified, roles in the violence attaching to that history. Hamilton recounts a dream that she experienced during this period of fieldwork. In the dream, she questions her locus standi within her research and vis-à-vis her narrators. She acknowledges that the dream work was a way of

highlighting a “complexity of [her] position as researcher in relation to the subject [she] was studying, a complexity which, on a conscious level [she]... failed (resisted?) seeing”. (Ibid)

For Hamilton, the dream space provided a mental area in which she could admit questions about her own agency in a research troubled with murky boundaries. The dream is a reflection on her practice, in the same way that his chapter offers my reflections on my own practice. Like Hamilton, I have dreamt about my narrators. I mention this to detail how important and how resonant the interview space is, this place that is created by us and how it is a place that is beyond conventional temporality and boundaries. I shall suggest that its affective potency is such that it can expand into a dream space in which, following Freud (1976 [1900a]), the dream material is worked over and subjected to various psychic processes of distortion and condensation. I do this not so much as to attempt to insert a personal dream analysis into this research, which, were I to follow the psychoanalytic protocol of free association, would result in the identification of a previously unconscious wish, but to indicate how the boundaries that describe, and surround relationships are infinitely flexible. These boundaries encompass spaces both real and unreal as part of a quest to impose a topology of meaning.

In Freudian terms, a dream is built out of psychic residues (resonances, even) from events and experiences specific to the person of the dreamer. The dream represents, at a basic level, a wish-fulfilment. Like Hamilton, I resist this route – not least, because the dream material is not being analysed as clinical material. Rather, these dreams – hers and mine – reflect where we situate our ‘selves’. For Hamilton, the dreams are “expressive... of the complexity of [...] categories” (Hamilton 2008: 40) upon which interpersonal communication devolves.

Ruptures in the unconscious

In considering dreams as examples of the affective effect of interviewing, I have raised the issue of what one might term a rupture in the unconscious, this rupture allowing the escape of material previously repressed. The sonic artefact is the site of this rupture in that it contains the consequential sound of this released material. I posit that a similar rupturing is at play in the compositional work of my five narrators. I use the concept of

écriture féminine musicale (Dame 1994; Bosma 2006:97, Shintani 2016: 39)¹⁹ as a way of analysing the momentum of my five composers. I do this to link with the concept of framing (as well as its antithesis: an unframing or breaking out of the frame) as a way of viewing the compositional work of the five artists.

This is an organising strategy that will allow two lines of examination. The first of these lines is one in which the composers represent themselves; the second line allows a critical discussion on how each composer has broken, rejected or subverted a pre-existing framework to produce a rupture that creates a space to work and, indeed, powers their work. This breaking, an active choice which results in a self-created freedom, constitutes a strategic homologue to the trajectory of *écriture féminine*. For Cixous, *écriture féminine* is a tool for looking at literary texts, and in particular, poetic texts. Poetry, because it is not tethered to conventional prose (for Cixous, novelists are the “allies of representationalism” [1976: 879]), draws “strength through the unconscious and because the unconscious, that other limitless country, is the place where the repressed managed to survive”. (Ibid: 879-880) If poetry is a rupture, an unfettering, then why not sound and music, the most unrepresentational forms of media? Why not, as Joke Dame (1994, cited by Bosma 2006) posits, an *écriture féminine musicale*, a feminine composition? I shall do this in the next chapter.

Concluding remarks

This chapter has concerned itself with space: the creative and imaginative space in which work might be accomplished; the space of narrative construction; the space of the interview encounter; the affective space in which the encounters – and my subsequent working over of the experience of them – have acted upon my subjectivity. In the next chapter, I shall introduce a new type of space which operates between Jacques Lacan’s symbolic and real registers. In this theorised psychic space, I see the energy of a new liberatory tactic as powering the strategic breakages that the composers of whom I write require in order to create new sound-worlds.

¹⁹ Bosma (2006: 97) and Shintani (2016: 39) acknowledge Dame’s authorship of the phrase *écriture féminine musicale* in her untranslated thesis (1994). Both scholars reproduce Dame’s phrase in their own texts.

Chapter Four:

In their own words: inside the inter/view

I ended the previous chapter by suggesting that Joke Dame's (1994, cited by Bosma 2006) *écriture féminine musical*, an application of Hélène Cixous's (1976) *écriture féminine* to the musical field, might be used as a lens to study compositional strategy. Dame's singular approach to Cixous's theory of literary rupture has subsequently been taken up by Hannah Bosma (2006) and Joyce Shintani (2016). I now build upon their earlier work with relation to psychoanalysis, the idea of (de-)composition (that is, a breaking of compositional norms), and the sonic artefact, which constitutes one of my contributions to knowledge. The interview excerpts presented in this chapter focus on prominent themes that link the five composers and which illuminate structural parallels and similarities in their markedly different ways of working. Concluding, I argue for the existence of an *écriture féminine musicale* as a way of analysing the strategies for work of my five composers as well as their output.

Towards an *écriture féminine musicale*

The application of an *écriture féminine musicale* in experimental composition marks an escape to a place where the composers can both sound and be heard. It is made via the radical rupture with the historical constraint of sexism re-enacted within the otherwise revolutionary domain of experimental music. Its effect is to imbue sound with a new and unharnessed sonority in which sound is allowed a new freedom: we hear this in the flows of sound from, for example, Annea Lockwood's water compositions, or in Pauline Oliveros's improvisatory scores – these are compositions in which sound is allowed to be itself, with its own defined sonic knowledge. In the following pages, we will consider how each composer discovered and fuelled that trajectory, discovering what Cixous celebrates in “The Laugh of the Medusa” as a “*new insurgent writing*”. (Cixous 1976:

880, her italics). For Cixous, *écriture féminine* is a strategy, a method, a means to liberation. In this essay, she writes that each woman:

[...] must write her self, because this is the invention of a *new insurgent* writing which, when the moment of her liberation has come, will allow her to carry out the indispensable ruptures and transformations in her history... (Cixous 1976: 880)

She continues: “Write your self. Your body must be heard”. (Ibid.) Although Cixous uses the word *écriture*, there is a hint that she is addressing more than writing alone. This hint lies in the power of the “must be *heard*”: because of this, I read in it an opening for a sonic form of *écriture féminine*. Abigail Bray (2004: 9) suggests that, because *écriture féminine* describes “an approach to thinking... the potential applications of Cixous’s thought are limitless”. I suggest that feminine writing could be extended toward the formulation of a feminine *sonicity*, in which the same frameworks – ideational, psychological, systemic – that hinder feminine writing are broken in this wake of this empowered *jouissance*.

In Cixous’s formulation, the writing is feminine because it has left – or ruptured – the grip of the symbolic order and the masculine-inscribing phallogocentric order of language. But because Cixous’s topos is about a psychic emancipation in which creativity is inscribed as opposed to writing (in a textual sense), why not expand *écriture féminine* to new fields? Why not, then, an *écriture féminine musicale*, a feminine composition, or from here, an *écriture féminine vocalisant*? As has been previously noted, *écriture féminine* is not an essentialist formulation. It is not writing produced by a biologically-determined female body (and I acknowledge here that the categories of female/male are couched in stable definitions). Cixous (1976: 875) is not writing about writing *by* women so much as a new feminine (*la nouvelle*) writing that is different – and differentiated – from that which came before, the old (*l’ancien*). In this sense, men are as capable of *écriture féminine* and *écriture féminine musicale* as are women. A male-authored *écriture féminine musicale* might consist of compositions which employ disruptive tactics or endings that refuse crescendo-climaxes. Renée Cox Lorraine (1991, quoted by Bosma, 2006: 98) suggests that Oliveros’s music, with its focus on non-hierarchical and non-linear compositional strategies, falls into this category. One sees this in the democratic nature of Oliveros’s *Sonic Meditations* as well as of the

composer's more formalised works. Oliveros told me how she had embedded equality within the "deep structure" of her composition, *To Valerie Solanas and Marilyn Monroe in Recognition of their Desperation*---- (1970):

I guess what I did in terms of the structural aspect of my music embodied the principles of feminist ideals, ideas and interests... in the structure of the music, the deep structure. That was important. For example, you mentioned *Valerie Solanas and Marilyn Monroe in Recognition of their Desperation*---- and that piece from 1970 was a piece that embodied equality. Everybody had the same part, but every individual could develop that part individually, but at the same with respect to the community they were involved in performing with. Okay, this is the inner structure of the music. (Marshall 2016c: 01:00:00)

Dame (1994, cited by Bosma, 2006: 103) extends Cox Lorraine's earlier line of thinking, suggesting that compositions by John Cage and Luciano Berio provide examples of *écriture féminine musicale*, just as the practices of Joan La Barbara, Cathy Berberian and Diamanda Galàs – all singers who specialise, in their distinct ways, in extended vocal techniques that they refract through their own trainings and interests – are examples of *écriture féminine musicale* because their musical method stretches the manner and possibility of bodily sounding and achieves a rupture of their own making.

Jouissance and sound

In addition to Dame, Cox Lorraine and Bosma, Christoph Cox (2005) and Shintani (2016) have separately mooted the application of Cixous's economy of libidinal energetics – the trajectory of *jouissance* – to aspects of musicology as a way of seeing a distinct form of feminine music-making. For Cox, the application of *écriture féminine* is a way of establishing a feminine principle which is potentially universal in its liberatory implications. Writing in the *Her Noise* catalogue, Cox considers the existence of a "*musique féminine*, a noise that can rightly claimed be as hers". (Cox 2005: 11) He reiterates the emancipatory aim of Cixous via an essay, "New Wave Rock and the Feminine", by the artist and theoretician Dan Graham (1981, cited by Cox, *ibid*: 11), which has at its centre a "theoretical matrix of 'difference feminism'". This, writes Cox, "locates the feminine in a kind of return of the repressed: in a resurgence of the primary drives that have been foreclosed by entrance into symbolic language". (*Ibid.*) Extended voices and the infinite sound palate offered by the tape, synthesizer and digital technology of experimental music have the effect of

offering a radical limitless of compositional means, a place where “formal systems of meaning and communication” collapse into a “messy heterogeneity”. (op. cit.: 13) Cox extends this anything-goes plane of inchoate sound to encompass Julia Kristeva’s definition of the semiotic as well as Deleuze and Guattari’s formulation of the body without organs, where “a dismantling of the libidinal investments that characterise Man and Music as norms” (ibid) leads to a position in which “experimental electronic music signals the becoming-woman of music”. The potential liberation, Cox posits, is beneficial for all genders, for the reason that it dismantles old normative definitions.

Jouissance and Cixous

For Cixous, feminine writing offers the intoxicating possibility of thought without boundaries, of the generation of ideas that point this way and that way, the delirious promise of a hypertext as an explosive, transgressive *jouissance* of possibilities.

Cixous’s use of the term *jouissance* is a redeployment of its original occurrence in the psychoanalysis of Jacques Lacan. For Lacan, *jouissance* – and its close relation, the *jaculation* – is beyond the sexual meaning that English translations lend to the words. In his own reading of Freudian psychology, Lacan theorises *jouissance* as an energy – a “superabundant vitality” – that is beyond Freud’s concept of libido, which will always have an object-cathexis. (Lacan 1992: 237) Thus, in Lacanian terms, a *jouissance* becomes a wide (as opposed to Freudian narrow) libidinal energy that powers a psychic rupture in the register of the symbolic order. This is the place of the search for meaning, of submission, firstly, to the semantic language that binds and defines us, and, secondly, to Oedipal authority (the law of the father), which forever holds out the phantasised threat of castration and, therefore, Lack.¹ Cixous’s feminist understanding of *jouissance* follows Lacan in locating it in, as Malcolm Bowie (1991: 153) describes it, “... the sinews, in thinking, in writing – wherever significance, the combined production of

¹ In contrast to Freud’s 1923 tripartite psychic topology of id, ego and super-ego, Lacan’s 1953 schema postulates three orders or registers: the Imaginary (the site of ego-formation); the Symbolic (the realm of language as understood in terms of de Saussure’s *langue* (the semantic structures of a language, and the play between signifier and signified rather than of a *parole*, that is, the spoken tongue); and the Real (an elusive site that is beyond meaning and symbolisation: it serves to situate the former two registers in an active, dialectical relationship). (See Lacan 1985: 162-17) Lacan adopted Melanie Klein’s formulation of *phantasy*, which refers to pre-conscious functioning as opposed to *fantasy*, which is a conscious activity.

meaning and pleasure, occurs". In this sense, *jouissance* thus becomes a pleasure that is beyond the phallus. The motor for *écriture féminine* is a subversive libidinal energy – a *jouissance* – that must be understood in terms that move beyond sexuality alone and more as an energetic pulsion.² Cixous, however, accelerates Lacan's post-phallic logic: she seizes hold of the disruptive, symbolic-sundering power of *jouissance* to refuse the threat of lack and of otherness and head towards "of a *new insurgent* writing which, when the moment of [a woman's] liberation has come, will allow her to carry out the indispensable ruptures and transformations in her history [...]" (Cixous 1976: 880). This refusal of lack is, for Cixous, the source of the Medusa's power and hence the creature's laughter. Referencing Freud's description of adult female sexuality as a "'dark continent' for psychology" (1986 [1926e]: 313), which is dominated by the sense of Lack (in Freudian terms, penis envy), Cixous makes the riposte:

The Dark Continent is neither dark nor unexplorable. – It is still unexplored only because we've been made to believe that it was too dark to be explorable. And because they want to make us believe that what interests is the white continent, with its monuments to lack. And we believed. They riveted is between two horrifying myths: between the Medusa and the abyss. [...]

But isn't this fear convenient for them [the priests, ie, wielders of power]? Wouldn't the worst be, isn't the worst, in truth, that women aren't castrated, that they only have to stop listening to the Sirens... for history to change its meaning? You only have to look at the Medusa straight on to see her. And she's not deadly. She's beautiful and she's laughing. (Cixous 1976: 884-885)

For Cixous, this realisation breaks the power of a masculine hegemony. Feminine writing leads to a situation that is post-phallic in that it has refused the inferiority engendered by Lack. This for her is myth-shattering: it is a way of reconceptualising history in its refusal of fundamental assumptions. Feminine writing is thus a leap *across*, rather than into, the abyss.

² Definitions of what libido is within psychoanalytic theory and how libido operates and cathects to objects (object-libido) undergo changes as Freud developed his project. The definition moves from its origins in Freud's late nineteenth-century instinct theory to a larger concept of Eros, a life-affirming instinct, in *Beyond the Pleasure Principle* (Freud 1920g). In Lacan's writing, *jouissance* could be theorised as an energy that exists outside the post-pleasure principle: for Lacan, *jouissance* is a *feminine* energy in that it unravels, breaks through and does not recognise lack: it is "a *jouissance* of the body which is... beyond *the phallus*". (Lacan 1982: 145, his italics)

Écriture féminine musicale and (de-)composition

It is possible to theorise Oliveros's move from an organised, compositional sound of her earlier works to the disorganised (or unpredictable) sound of the *Sonic Meditations* as the compositional homologue to Cixous's formulation of feminine writing. In terms of musicality and of sounding out into a multiply-theorised space, one might say that this compositional turn is truly radical, as it looks toward a process of (de-)composition in the sense that embraces the possibility of its own sonic ends – as well, paradoxically, of its own endlessness.³ So, for example, a note sung out in Oliveros's *Tuning Meditation* (1971), a work that, once its first notes are sung by each participant, is constructed purely from a social setting in which a person sings a note that they have heard sung by another person, will end as each person's physical breath ends.⁴ There will be a brief pause for each participant to draw breath – to aspire, in both its physiological and metaphorical meanings – to a new sound, a new relationship, a fuller community that negotiates a sonic history, in the sense that the sounded notes represent what has already happened. The clouds of hanging harmonies generated by the interplay of multiple notes will gradually undergo a sonic decay, changing their form in a constant process of unstoppable iterations and vibrations.

Heidi von Gunden (1983: 105), Jennifer Rycenga (1994: 44-45) and Martha Mockus (2008: 49) explicitly link Oliveros's approach to a non-hierarchical improvisation that reflects her deepening feminist activism in which no one voice dominates and in which no structure constrains.⁵ The shape of *To Valerie Solanas and Marilyn Monroe* illustrates this: its main structure is of a listening democracy in action. And Oliveros's (2015: 138) own definition of meditation bears this out. "I use the word meditation, rather than concentration, in a secular sense to mean steady attention and steady

³ I invoke Edgard Varese's (Varèse and Chou Wen-chung 1966: 18) definition of music as "organized sound" (and its antithesis) to underline the dialectically interesting position of music *qua musique concrète*, aleatoric, experimental and – here – Oliveros's music.

⁴ Pauline Oliveros's score for the *Tuning Meditation* (1971) is as follows: "Using any vowel sound, sing a tone that you hear in your imagination. After contributing your tone, listen for someone else's tone and tune to its pitch as exactly as possible. Continue by alternating between singing a tone of your own and tuning to the tone of another voice. Introduce new tones at will and tune to as many different voices as present. Sing warmly." (Mockus 2008: 86)

⁵ "Jennifer Rycenga lists the following concerns that feminism and music might share: non-dualism, non-hierarchic structure, acknowledging the importance of material reality, listening and giving attention to the voices of women, dialogic nature, and respect for the agency and limitations of others." (Mockus 2008: 48)

awareness for continuous or cyclic periods of time,” she states in “Sonic Meditation”, a short essay written in 1973.⁶ As Rycenga states: “The key [to the *Sonic Meditations*] was in how [Oliveros] kept the focus on sound, not the external construction of music” (Rycenga 1994: 38). It is an approach that is also closer to an experimental composition in its interest in the materiality of sound rather than to any aleatoricism born of a Cageian tradition, and Oliveros’s first forays into these works – instructional (de-)compositions – were to, an extent, made within an existing framework.

The same could be said in relation to a number of Annea Lockwood’s compositions. Many of her large-scale works invite a notional idea of a vast framework, which is then compositionally refused (ruptured even), through a flowing current of sound that cannot be contained. The course of the Danube, the sounds of the Housatonic River, the imperceptible sounds of the natural world that are sonified into the frequencies compatible with human hearing: these have all provided compositional sources for Lockwood in works which invite intense concentration on the sound of sound itself.⁷ Lockwood’s limitless sound composition promotes continuity, and as in her earlier *Piano Transplants*, it links people and things in an endlessly sounding universe. One sees this most poignantly in Lockwood’s *bayou-borne, for Pauline* (2016). For six voices or instruments, *bayou-borne*’s graphic score shows drawings of six bayous that converge near Houston, Texas, where Oliveros was born and raised. The six players, one for each bayou, have separate sound journeys before meeting near Houston and then flowing, in ensemble, downstream, these sonic current emptying into a sonic equivalent of the Gulf of Mexico.⁸ Lockwood’s oceanic refusal of boundaries is tender in its dignity: it carries Oliveros’s legacy outwards towards ever-greater resonance. Both honouring Oliveros and commemorating her, Lockwood conjures up deep sound for the founder of Deep Listening.

(De-)composition and sonic materiality

Today, the exploration of sound decay (in terms of the sound envelope) as a (de-)compositional strategy within experimental and contemporary classical music and

⁶ Oliveros’s “Sonic Meditation” was first published a few years after it was written in 1976 in the *Painted Bride Quarterly*.

⁷ For example, Lockwood’s *A Sound Map of the Danube* (2005), *A Sound Map of the Housatonic River* (2010) and Lockwood and Bielecki’s *Wild Energy* (2014).

⁸ See: <http://stilllisteningoliveros.com> (Last accessed 29 April 2018)

sound art is not a radical practice in and of itself, but it was not always thus.⁹ Oliveros's deliberate embrace of disappearing sound within the *Sonic Meditations* (as in her later formulations of Deep Listening improvisation) represents an extraordinary initiative of musicality.¹⁰ Placed within a full context that acknowledges the perception of listening and of creating sound inside its social dimension, this emphasis on a wider hearing offers the opportunity to us, its listeners, to hear echoes of rich histories and future possibilities. As Salomé Voegelin incisively points out, an attention to such a sonorous materiality of sound:

[...] reveals the invisible mobility below the surface of a visual world and challenges its certain position... to reveal what this world is made of, to question its singular actuality and to hear other possibilities that are probable too, but which, for reasons of ideology, power and coincidence do not take equal part in the production of knowledge, reality, value and truth.
(Voegelin 2014: 2)

Indeed, in the substantial work of Éliane Radigue, whose electronic music moves so slowly as to almost suggest its reduction to a physical particle, a quantum of sound, (de-)composition is a compositional strategy of engaging with the very materiality of sonic matter. (To this, we can add Radigue's interest in the moment of uncomposition, that split-second before, for example, the bow hits the string and a sound vibrates into being. Radigue's post-electronic works – principally her *OCCAM* series – explore these most subtle of nuances and intentions.) There are similar (de-)compositional currents in operation in the work of Joan La Barbara and of Ellen Fullman, both of whom extend the meaningful capacity of sound and composition by means of techniques utilising either extended vocalising (La Barbara) or by setting up relationships of beating soundwaves generated by long strings (Fullman). In terms of the physics of sonic energy, a triggered soundwave will describe its materiality, the resonances made available to it (the wooden body of a violin, for example, or the skin of a drum) as well

⁹ Alvin Lucier's *I am sitting in a room* (1969), for voice and tape, is an exemplar of this type of (de-)composition.

¹⁰ I am thinking here of the improvisatory work played by Oliveros and her colleagues and recorded fourteen feet underground in an empty cistern at Fort Worden, Washington State, in 1988. Because the cistern had a forty-five-second delay, the musicians were reacting against historic notes. It was this experience that led Oliveros to coin the phrase "Deep Listening", which she then extended to the name of a band as well as her listening practice. At the time of the recording of the *Deep Listening* album, she and her colleagues had not yet constituted themselves as [the] Deep Listening Band. See: Oliveros, Dempster and Panaiotis, 1989.

as its environment. Untreated by studio tools, that much is evident: a naked ear will discern these differences in a sound's timbre and tone. In *Ear-Walking Woman* (2005), a 1996 composition by Lockwood (for pianist Lois Svard) for "prepared piano and exploring pianist" (coins, stone, bubble-wrap and other items are added to the grand piano's interior), the composer's interventions within the body of the instrument alter the sounds produced and the trajectory of these sounds. These are interventions that offer new ontologies of sound, a new materialism. As in Lockwood's river *Sound Maps*, the compositional work is a journey, an exploration of boundaries as much as a suggestion that boundaries can (and should) be breached.

These are examples of "superabundant" – to reiterate Lacan's formulation of *jouissance* – music, compositions that surge and overflow any boundaries. (Lacan 1992: op. cit.) Refusing a compositional form of containment, is, I suggest, in itself an *écriture féminine musicale*.

Écriture féminine musicale and audibility

The *écriture féminine musicale* offers an opportunity for redress, too. Women composers (like so many other female professionals) are not well represented in the canonical literature. The reason lies not only in a relative absence of opportunity, but in the prevailing culture which rules, either explicitly or implicitly, that women should not be in the public arena. A female presence is destabilising to the norms. When they are there, they are subject to any number of the "subjective distortions" (Nochlin 2015a: 42) which render them unheard, unseen, unpromoted.

For women to have had the same level of training as a man, or to be working in a new and forward-looking field is not enough to erase the accumulated weight of historic and systemic sexism. Oliveros speaks of the "boys' world" of the electronic and radiophonic studios. (Marshall 2016c) She speaks explicitly of exclusion in technological areas. Annea Lockwood, in recollecting London's new music scene, which was then dominated by Cornelius Cardew, speaks of exclusion in more veiled terms. And Joan La Barbara (Marshall 2016b) will provide, in the following pages, a deeply personal narrative of how, in a moment of great anguish, she felt judged for wanting two things: a career and motherhood. Should these two things be mutually exclusive? Of course not, but the fact that La Barbara was made to feel guilty after suffering a miscarriage while

on a concert tour is indicative of the great ambivalence that exists between the acceptance of a woman in both a professional persona and a private one.

La Barbara: “speaking her self”

Within the interview, I experienced La Barbara’s account as an explosive eruption – not so much of *jouissance* as a story that had to be told – into a narrative that, at that point, was focussing on her professional relationship with composer Morton Subotnick. (That the two are married adds a layer of complexity to this.) As in *écriture féminine* (if not *musicale* than *vocalisant*) of autobiography, La Barbara is, *pace* Cixous’s (1976: 880) “speaking ‘her self’”, her “body must be heard”. La Barbara’s narrative is also about her body on show (the stage is not only that of the concert hall, but of the surgical theatre) and her account highlights the collision between the personal and the professional. A subtext of La Barbara’s account is that the existence of the woman as a woman is constantly borne upon her. It cannot be forgotten.

At that point it was 1981 and Mort [Subotnick] had a DAAD [scholarship in Berlin]. I was heading off on a tour. We were going to Poland and then to Warsaw to the Warsaw Autumn Festival and from there I was going to do a small three-city tour in [West] Germany.

Just before that I found out I was pregnant. I went to see this doctor and I said, “I am going off on tour.” He said, “Well, fine. Come and see me when you get back.” Everything went fine in Poland. I did concerts in – I want to say Cologne. There were three cities, Cologne was one of them, and wound up in Morau¹¹ [Mörel? 2:04:10] in the Ruhrgebiet, which is this industrial area [in western Germany].

And. Um. And I started spotting in the afternoon and... I realised something was wrong. I took a washcloth and stuffed it in my pants and did the concert, did the Q&A afterwards, and then said to the museum director where I was doing the concert when everything was finished, I said, “Now we have to go to the hospital because I am pregnant and I am probably losing the baby.” With that clarity, you know? The blood drained from his face. We got into his car and I said, “You had better put a blanket on

¹¹ I have been unable to establish the correct spelling of this location.

the seat because I am bleeding and I don't want to mess up your upholstery." And we got there and... I mean, it was very traumatic. I can tell it this way, but it was that kind of cold, doing what must be done that one gets into in a situation like that.

Louise Marshall: In emergency situations.

Joan La Barbara: And the doctors examined me and they said, "You are no longer pregnant."

Louise Marshall: And you were by yourself?

Joan La Barbara: I was by myself. And at that time where I was in Germany, I – the doctor, a good doctor, he was Asian – we conducted this conversation in German. I had enough German by that point to deal with it. I do remember his explaining two things. First of all, I had to take off my wedding ring, which was, "Oh, come on. The baby has gone, you also have to take the wedding ring?" Because your fingers might swell.

Then also he said to me, "Did you eat? How long ago was it that you ate?" I had not had lunch or dinner. Because I was feeling odd I [had] just rested and I never eat before a concert anyway. It had been well over eight hours. He said the strangest thing. I said, "I haven't eaten for x number of hours." He said, "If you are lying we may have to put – do – a tracheotomy because if you start to choke we have to open that up."

How many things do you have to go through? I said, "I am not lying. I didn't eat." We did this. The doctors, of course, called Mort. He got on a train.
(Marshall 2016b: 02:02:40 et seq)

A few minutes later, La Barbara adds further details:

When I got back to Berlin and I went back to the doctor and told him, he said – the other thing the doctor, a different doctor, in Morau [?], said to me, "*You shouldn't have been travelling. You shouldn't have been carrying a bag.*" I had these electronics that I carried with me. Not only did I go through all of this, but then there is another layer of guilt. (02:08:40 et seq)

[...] "What's wrong with me?" This whole thing. And there is, there is almost a kind of shame

associated with it. You know – *the shame that was imposed by that doctor, “Your fault. Your fault”*– but also because we don’t talk about it, it is not spoken of openly.

(Marshall 2016b: 02:10:31 et seq. My emphasis)

La Barbara’s account of this traumatic experience – unknown to me before the interview – exploded into a narrative that had started some minutes beforehand with a question that related to how she carved her own career space as a fledgling composer within a relationship with a partner who was already well established in his own compositional career. I suspect that La Barbara had not planned to tell it but once started, it gained its own momentum. It was a story that had to be told. There is a precision in her voice as she tells the story, a flatness of tone and affect that is in marked contrast to an amusing anecdote that precedes it: La Barbara and Subotnick had seriously considered asking the Archbishop of Canterbury to conduct their marriage service. In terms of its provenance as an oral history document, this story – as indeed, the larger document – is the “feminist encounter” that is identified by Sherna Berger Gluck in that it provides a validation of women’s experiences, it is a communication between two women of different generations and it puts on record that which is normally absent within “traditional historical accounts”. (Gluck 2002: 5)

Oral history, the feminist encounter and narrative eruptions

The oral historians Michelle Mouton and Helena Pohlandt-McCormick (1999: 41) refer to the eruption of stories of this type as boundary crossings, in which a narrative is suddenly shattered by the emergence of urgent material. They identify boundary crossing stories as narratives enabled by their methodology. These narratives are indicative of “oral history’s potential to unmask something beyond the immediate, ordinary, conventional explanation of events, something more raw and vital, unruly, and disruptive of the usual narrative.” In the same way, La Barbara’s account was enabled by my oral history methodology. Our meeting was a “feminist encounter” which heard and validated La Barbara’s terrible experience.

And yet where does this story lie within the framework of women being excluded, of occupying an uncertain ground? La Barbara is a composer whose instrument, her voice, is embodied in her. She is it and it is she. It follows that for her to speak of vocality is to speak about her body, its integrity and its capability. Composition, by this token, is a bodily-centred, embodied process: she begins by talking of composition and ends by talking about trauma. At first sight, La Barbara's narrative of her miscarriage might seem to be unrelated to the question which started this inexorable momentum of her testimony. A topology of narrative points indicates otherwise: there is a clear neighbourliness between elements of her story. The sequence runs thus:

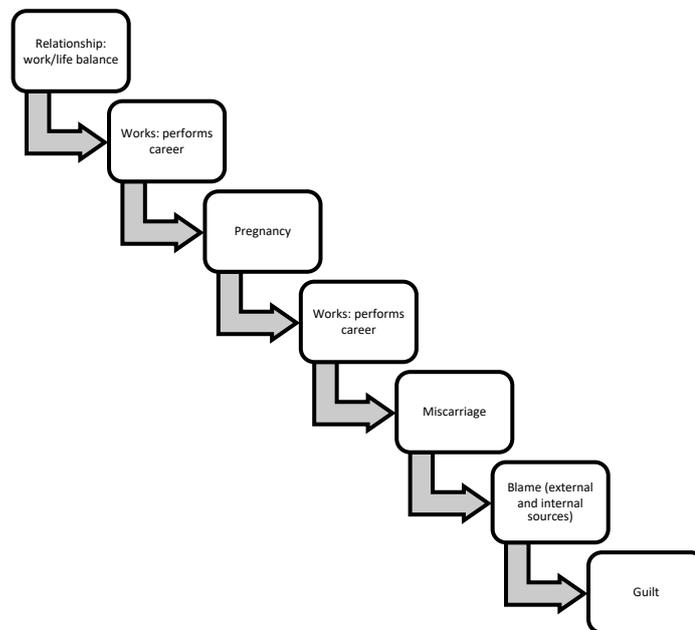


Figure 1: La Barbara: guilt sequence

The individual details of this story are personal and specific to La Barbara, but the sequence of events – a woman wants to work; she becomes pregnant; she works; the pregnancy fails; blame is apportioned from both external (medical) and personal sources; guilt ensues – is a pattern that is recognisable to all women who push for greater acceptance within a resisting framework composed of a historic and contemporary mesh of social, economic, gender and cultural boundaries. Women who do this become bodies – physically and culturally

speaking – that demand recognition in moving into new territories of activity. The accentuation of the body – its identity as a voice, as an instrument, as well as its child-bearing potential – is what makes this sequence, outlined above, so harsh.

Each of the five composers in this research has had to negotiate her own way through constriction to make a career as a composer. This journey and its negotiations form the strategic path of my title, and the work that results from this constitutes, I argue, Cixous's "*new insurgent writing*" – an *écriture féminine musicale*. (Cixous 1976: 880)

Framing: existing, breaking, redefining

The existence of the possibility of an *écriture féminine* (of any type) rests on a pre-existing structure or framework against which this energy must react. For a frame to be broken, to be ruptured, then it has first to be identified. The following sections will focus on this twin process – identification of the frame and its rupture – in the cases of each of my composers. I will then move onto the conditions of possibility: networks, economics and the recognition of the possibility of a life as an artist. As a way of working across these five sets of testimony, the interview excerpts presented will focus on prominent themes that link the five composers and which illuminate structural parallels and similarities in their markedly different ways of working.

Framing as an organising strategy allows two lines of examination. The first of these lines is one in which the composers represent themselves; the second line allows a critical discussion on how each composer has broken, rejected or subverted a pre-existing framework in order to produce a rupture that creates a space to work and, indeed, powers their work. This breaking, an active choice which results in a self-created freedom, constitutes a strategic homologue to the trajectory of *écriture féminine* postulated by Cixous (1976). In brief, this is a psychoanalytically-derived theory for a (feminine) creativity that is unfettered from the (masculine) past. At this early stage, it is important to stress once again that Cixous's definition of feminine and masculine are not wedded to biological sex. Feminine work, argues Cixous, refers to a work that is a way of re-inscribing oneself: the "*new insurgent writing*" (Cixous 1976: 880) is revolutionary, liberatory. Summoning the psychic topology of Jacques Lacan, Cixous

designates *écriture féminine* as an emancipatory activity that refuses (ruptures) the symbolic order, the authority of phallogentric language (with its threat of castration and ensuing Lack) and the law of the father.

Framing – as an imposed or negotiated boundary that contains and organises otherwise scattered points of material, sound and speech – is a metaphor that runs through this research. We will see it invoked, in this chapter, in the work of the composers on which this research is based. In the subsequent chapter which advances the concept of the sonic artefact as an epistemic tool to create deep meaning, a psychoanalytic discourse around framing will be elaborated, principally within the “self-sound interval” (Lecourt 1983: 578), a concept which problematises how the ego’s boundaries process sound, itself an entity that is unboundaried (Lecourt 1990); and in Bernard Burgoyne’s (2011) application of the mathematical theory of general topology as a structuring principle. In these ways, the function of the sonic artefact acting within an interpersonal space will be considered.

A framework, or topology, of existing artistic, economic and cultural conditions surrounds these five composers. A frame marks out boundaries (limitations) as well as displaying what is without its space. Each one of the composers has had to break through these frames to reach a point at which they might establish new parameters that surround their work in a more meaningful and egalitarian way. Whatever they were going to do can be expressed in a dialectical relationship between existing conditions and what was yet to be achieved. I argue that the process of redefining of a frame is akin to an artistic strategy of (de-)composition, in that it rewrites and rewires what composition can be. I will consider how, for the five composers, the frame is defined and how it is equated with a cultural, social and sexual status quo that has – at best – an ambivalent relationship with women’s work and creativity.

Breaking and redefining frames: Pauline Oliveros

In 1971, when *Source* magazine published the text-score for Pauline Oliveros’s *Sonic Meditations*, the composer began her self-description in its opening paragraph in this way:

Pauline Oliveros is a two-legged human being, a female, lesbian, musician, composer among other things that contribute to her identity. *She is herself* and lives with her partner Lin Barron in Leucadia, California along with assorted poultry, dogs, cats, rabbits and tropical hermit crabs.¹² (Austin and Kahn 2011: 342. My italics)

What does Oliveros mean when she writes “She is herself”? The full paragraph contains nothing of the usual biographical information relating to birth, schooling, works and honours that characterise a typical standfirst. All these things – education, publications, employment – are significant aspects of a person’s life; they *contribute*, to use Oliveros’s word, to a person’s identity, their sense of being in the world. They are markers as to their owner’s locus and lineage, their status within a conventional social order. By virtue of locating her identity markers in other formats – two legs, an animal-lover, a lesbian with a named partner – Oliveros resists, in this one paragraph, the conformity to conventional forms. Her ludic responses replicate a *détournement* that not only overturns the given order but also issues an invitation to others to do so, too.¹³ It also presents a conscious strategy in which Oliveros refuses to situate herself within patrilineal terms and its history, which flows on a vertical axis in a top-down direction. She triangulates herself and her position in the world by different means that she *herself* names. This agency is important. In Oliveros’s bold and empowering statement, I detect her engagement in upsetting all things that represent the status quo. It is an act of upsetting that reinscribes and reflects her engagement with Nochlin’s “subjective distortion” as a means of oppressing and erasing women from the record through an unexamined relationship to commonly held “‘natural’ assumptions”. (Nochlin 2015a: 42) This is a territory, where, Nochlin writes:

[...] the very position of woman as an acknowledged outsider, the maverick ‘she’ instead of the presumably neutral ‘one’ – in reality, the white-male-position-accepted-as-natural, or the hidden ‘he’ as the subject of all scholarly predicates – is a decided advantage, rather than merely a hindrance or a subjective distortion. (Ibid.)

¹² I have retained Oliveros’s punctuation. At the time that *Source* printed the text-score, there were eleven *Sonic Meditations*. When Oliveros published the score in 1974 she had expanded their number to twenty-five.

¹³ It is unlikely that Oliveros had any direct contact with the Situationist theory generated in France in the late 1950s/early 1960s and in translation from the late 1960s onwards. However, several of her actions (for example, her composition *Bye-Bye Butterfly* from 1965 or the *Postcard Theater*, with Alison Knowles) resemble *détournements* in their intention to reflect and destabilise existing hegemonic positions on history, sexuality and women.

In this I see evidence of the “rhizomatic” patterns and “horizontal histories” that Anne Hilde Neset and Lina Džuverović (Džuverović and Neset 2005; Džuverović 2012) invoke in their essays on Her Noise to describe the alternative systems of networking and social situating that are indicative of feminist networks. The female-based networks referenced by the two founders of Her Noise are, perhaps, more pliable, more flexible than those with more rigid structures.

Oliveros’s invitation is a radical one that opens the possibility of an identity constructed in ways that challenge the status quo. It is thus not insignificant that the *Sonic Meditations* are dedicated to the ♀ Ensemble, the ten-strong, all-female group Oliveros assembled around her in San Diego between 1970-72, but also the pioneering aviator Amelia Earhart, whose disappearance, mid-flight, in 1937 made headline news of the type that the young Oliveros, an avid radio listener from childhood, would have surely heard of. Just as Earhart travelled in uncharted territory for women, so Oliveros asks her sonic meditators to move into new territories. The *Meditations* are not conventional music scores: they ask the participants to make sounds or listen to sounds, but they are, writes Martha Mockus (2008: 43), first and foremost, “concise prose instructions that create guided improvisatory situations”. They also mark the beginnings of Oliveros’s move away from compositional sound to a more improvised, non-instrumentally-based one, replete with all the social ramifications that this involves. The first meditation, written in 1971, invites its practitioners to take something of the same courage as Earhart had: indeed, it has the playful (and, perhaps, aspirational) title, “Teach Yourself To Fly” (*Sonic Meditation I*):

Any number of persons sit in a circle facing the centre. Illuminate the space with dim blue light. Begin by simply observing your own breathing. Always be an observer. Gradually allow your breathing to become audible. Then gradually introduce your voice. Allow your vocal cords to vibrate in any mode which occurs naturally. Allow the intensity to increase very slowly. Continue for as long as possible naturally, and until all others are quiet, always observing your own breath cycle.
(Oliveros 1974: n. p.)

What Oliveros invites us to do in this exercise is to embark on a sonic exploration located in the sounds that each one of us makes. Oliveros describes the spatiality of the circle and acknowledges that the participants are involved in a social sonic

improvisation. There is a spatial delight here, akin, perhaps, to the three-dimensional freedom enjoyed by Earhart the pilot. Portelli speaks of the oral history interview as existing in the “unchartered territory of discourse” (Portelli 1998: 25) and yet helped in its navigation towards a narrative by the structuring tools that the various genres of storytelling draw upon, “much like the invisible but rigid airwaves that guide airplanes in the fluid territory of the sky”. Cixous’s reflection of feminine writing as a dynamic activity that is able to – in Bray’s (2004: 8) words – “perform an acrobatic flight into thinking, to cross over to difference and the other” – expresses a similar joy.

Breaking and redefining frames: Éliane Radigue

Éliane Radigue’s early training as a musician was not remarkable. She participated enthusiastically in various musical opportunities while a school student; in her early twenties, she undertook instrumental studies in Nice. Her entry into experimental composition came with the realisation of the richness of the sonic decay of drone noises. She recounts listening to aeroplanes after she began living in Nice at the age of nineteen:

And I remember a flight in between Nice and La Corse [Corsica] a little bit later in an airplane where it was just a symphonia, all the time, you know, by going. Sometimes now [snaps fingers] they are not so subtle. I mean the big aeroplane now, it is all too much. This is not my style. But by that time, they were nice airplane, you know, just to follow, you just followed the sound. (Marshall 2015c: 00:17:00)

Hearing the rich harmonic properties within these quotidian sounds were for Radigue a revolutionising experience that provided the foundation for her interest in the *musique concrète* emanating from Pierre Schaeffer and, later, Pierre Henry:

It was in the [19]50s when I heard for the first time Pierre Schaeffer on the radio when I was in Nice and I discovered that there was also another way.¹⁴ You know, somehow, I was happy with these aeroplanes’ sounds but that was something, you liked to play with something. But, here, Pierre Schaeffer widely opened the door and said with it, like John Cage, like several

¹⁴ Schaeffer presented morning radio programmes on which he played experimental music and it is these broadcasts that Radigue listened to. The piece she heard was probably one of Schaeffer’s *musique concrète* works. She speculates that it could have been his 1958 *Étude aux allures*. (Warburton 2005: 29)

musicians at the same time, just to say, “But everything depended.” [...] Here maybe we come to the real point of our meeting: it is in our way of listening that sounds can have their own meaning and their own sense. And you can hear to some pipe with water running and it is music. And so everything can become music depending on the way you listen to it. (Marshall 2015c: 00:35:00)

This new way of listening was, Radigue says, “like a revelation”: the sounds were “obvious” and “just there” as opposed to the manufactured formality of serialist techniques, which she abandoned: “And I could give up on my twelve tones, which was a little bit like now training my mind, trying to keep it working and doing some sudoku or crosswords, you know. The process was a more interesting thing for me than the result, you know.” (Marshall 2015c: 00: 39:15)

New ways of listening (and of constructing sound sources) were, however, accommodated in old ways of working. Radigue had to juggle childcare with her activities at the Studio d’Essai; and even the powerful patronage of Schaeffer was not sufficient to recommend her talents to a radio station in Nice. Her account of this episode I give in Chapter One of this thesis. Even as her early compositions – her tape-based *propositions sonores* – began pushing against older compositional structures, she had to break through a frame of a more patriarchal nature.

Radigue’s frame-breaking is two-fold. Her interest in developing working with sounds of long duration – generated, to begin with, tape loops and microphone feedback – led to a growing interest in the possibilities of the materiality of electronic (as opposed to *concrète*) music.¹⁵ For Radigue, long-form tones, generated best on synthesizers, were complex sounds that already contained the breadth of sound she required for composition. This is in marked contrast to the constructivist nature of *musique concrète*.

¹⁵ This development of a personal direction away from *musique concrète* was to arouse the wrath of Schaeffer and Henri against Radigue.

Radigue's experiments with synthesized sound have led to a compositional strategy that is based on sound itself, where drone-tones are isolated and slowly modulated as an ontological exegesis into the nature of time, of transitions and elisions between harmonic spectra.¹⁶ And yet Radigue's structures are not untethered from earlier types of compositional form. In a musicological analysis of the impact of a Tibetan Buddhist practice on three compositions, Viviane Waschbüsch (2015) draws our attention to some familiar structures in Radigue's synthesizer works.¹⁷ These include the Biblical textual references in the *Trilogie de la mort*; and the continuous bourdon bass in *Songs of Milarepa*, which mirrors a typical baroque bass line, with its overlay of fluctuating microtonal sounds. In this respect, there are fruitful parallels to be drawn between Radigue as a composer addressing not only electronic music, but an earlier, historic legacy.

However, this is, literally, a radical approach to sound and composition that, for all its references, exists in its own revolutionary context. Radigue puts listening at the heart of understanding not only composition but sound, and the transitions of sound. I asked her about how the Tibetan Buddhism focus on sound links to her activity as a musician. She replied:

Strangely enough, that's the first time that someone has asked me this question and I have to think about it. I would say that for me, an experience, coming from true experience, the most important is when we are a group doing a puja, reciting mantras and where, when it goes well, there is all these sounds, overtones, which are floating. Really. For me, this is the strongest experience. [...]

[What comes to my mind]. The most important is that. I remember one extraordinary experience like that once. We were, I don't know, maybe thirty or forty people. It was in Dordogne at the place of where my guru, Pawo Rinpoche, was living, and it was the last year he was there for the Losar – the Losar is the New Year of Tibetans – he was leaving for Kathmandu the year after, I don't know why, maybe for the special occasion. There was something very special, also, in the year. [...] We had several times at the already great experience, but at that time it was just like, you know, if all the sounds were

¹⁶ Lockwood has a similar approach, although her compositional method is very different.

¹⁷ Waschbüsch cites Radigue's most fully Buddhist works, the *Trilogie de la mort* (1988-93), the *Songs of Milarepa* (1984) and *Jetsun Mila* (1986).

– ahhh! *We were like [that], bathing in the sounds. The sounds were there within, inside, outside, and all, that was the same.*

For me, that’s the most extraordinary experience with music. Not only with Tibetan – and it’s not really Tibetan music – but in the experience with sounds, this fullness. This probably has been very important with what I am doing now with musicians: looking for this... “flavour” is not the right word, but for this part of the sounds that we cannot catch. It’s impossible to catch that, it’s completely unreal, it’s completely floating, it is free. (Marshall 2015c: 01: 56:00. My emphasis)

Radigue is speaking ostensibly about a religious ceremony – a puja – but she is also speaking of how we are all listeners of a type. We are inscribed, complicit, implicit in sound (Pettman 2017: 1), with all the consequences of an ontological ripple effect.

Breaking and redefining frames: Ellen Fullman

Theresa Wong, present during my interview with Ellen Fullman, mentioned an album that she – Wong – released in 2011: *The Unlearning*.¹⁸ Its title is, perhaps, a conscious echo of Cardew’s *The Great Learning* (1968-70), the seven-‘paragraph’ (or part) work which inaugurated the formation of the Scratch Orchestra in London. For Wong, an unlearning was a praxis that allowed her to reappraise her very thorough formation as a classical musician, as well as aspects of social training. Wong volunteered this information about her CD after I had asked Fullman if she felt that a lack of formal musical training had not held her back in her compositional career, because it meant there was little for her to unlearn as she went into a new territory. “I think, I think so,” Fullman answered. She then picked up on how learning and training is not without pitfalls:

But my training was in visual art [at the Kansas City Art Institute] and I had a very strong, like, drawing teacher as well, Stanley Lewis, who – I love his paintings – but I started to draw like Stanley Lewis and I just wondered, well, where’s my voice? So it’s like, I don’t know... it’s like, you can’t... have to get rid of what you’re good at, and I’m a beginner in music.¹⁹ (Marshall 2015a: 00:35:30)

¹⁸ Theresa Wong is a classically-trained cellist and pianist, who has, in recent years, worked with Fullman in both performance and composition. She is also Fullman’s partner: they married in 2017.

¹⁹ Stanley Lewis (US, b. 1941) taught in the painting department at the Kansas City Art Institute between 1969-86.

The problem Fullman identifies is one common to all young artists: how do you find your voice? How do you create the space and time to allow the emergence of a voice and a meaningful practice? Fullman recalls in our interview the importance of learning (as a student at the Kansas City Art Institute in the mid- to late 1970s) about destruction followed by radical reconstruction as creative methods.²⁰ This something-out-of-nothing approach is interesting: it stresses a makerly-ness, a craft, that Fullman first associated with her father, who created his own home studio, and now, after college, she translated into the making and, for many years, constant modelling and honing of the Long String Instrument. She speaks of how the first iterations of the instrument involved coffee tins as resonators, door springs and wires. In later years, she attended carpentry classes to fashion the resonator box that the Long String Instrument currently uses. These lessons were a formative part of her development as an independent artist, introducing her to an idea of process and thus beginning her education of unlearning to learn.

In the following excerpt from Fullman's interview, the free-flow of this thinking is in evidence. A chance encounter with the work of Harry Partch – very much an outsider composer and musical inventor – resonates for Fullman. This excerpt is close to our conversation on unlearning and Fullman's stream of recollections moves quickly – Hans Hoffman, Bauhaus design, an encounter with Morton Feldman, whose music she does not (yet) understand, but recognises as something profoundly important.

We had a faculty member from, they called it MCAD – the Minneapolis College of Art and Design – and she, ah, Kathleen, I can't remember her last name, but she had an album, a box set of Harry Partch's instruments, and when I saw the photo I was just thrilled by it but I had already done my *Metal Skirt Sound Sculpture*. I did that when I was in my senior year in sculpture and that idea didn't... I mean, I didn't know anything, you know, about music.²¹ I... I didn't think about any contemporary scene or anything. My thoughts with that piece were Bauhaus costumes, okay? Also, this will sound really dumb, but Hans Hoffman, push-and-pull-theory, because Stanley Lewis... well, I studied at the New York Studio School for one semester, okay, and that's very much the New York School of Painting, okay, and that all

²⁰ In terms of mapping destruction as a creative process into one's work, there is an obvious parallel with Lockwood's early formation as an experimental musician.

²¹ Harry Partch (US, 1901-74), composer and instrument maker. Partch tuned his instruments in just intonation (as opposed to the Western convention of equal temperament, which uses fixed pitches). Fullman's early interest in the sonic relationship of tones is relevant to the iterations of her Long String Instrument.

fits in with Cage and also [Morton] Feldman was the artistic director of that school – the New York Studio School of Painting and Sculpture, okay...²² As a matter of fact, when I was there, he came in as a visiting artist with a little Nagra tape recorder, put it down with two remote speakers. We all sat in, like, a little classroom on the floor around him and he played one of his pieces and it was, like, *I just had no idea where that was coming from; it was, like, I didn't know what to make of it whatsoever. I knew it was important, I knew it was special, but I didn't, I couldn't relate. I didn't understand it at all.*

And then when I went I back after being in New York for that fall semester and then spring was when I built the *Metal Skirt Sound Sculpture* and... so the other idea was very steeped in, like, Hans Hoffman, push-and-pull, and just thinking of – what that has to do with is like the flat plane pushing into the space, you know, with, by how the mark-making, then the edges were also keeping the boundary in mind, like for example, Stanley Lewis would draw a square – not a square, but a shape – on the paper and he would, like, push against it with mark-making, and you know always, or erase part of the line so that then the work was coming out off the page, pushing the bound–, breaking the boundary and then the boundary of the frame also flattened the work so you've got this *weird kind of battle, he would say, between space and flatness that the artist is conducting between space and flatness and it was so exciting to me to be, like, working with that, the process like that.* (Marshall 2015a: 00:54:00. My emphases)

I cite Fullman's words in full because they offer a dynamic vision of thought. Her summary of a formative period singles out clear lines of development: a world of new sounds; a sense of boundaries to be breached; of performative actions with consequences; the tension – “this weird kind of battle” – of how one occupies space in a three-dimensional way. In the Intermezzo earlier, I described Fullman's clanking *Metal Skirt Sound Sculpture* (1979) and its use in *Streetwalker* (1980), the performance that takes place on the streets of the red-light district of Minneapolis. They are both early works, seemingly unlinked to Fullman's subsequent invention of the Long String Instrument and her composition and performance of her own music on it. And yet jointly and separately, these early works make important statements about the frameworks that delineate the social space in which feminine sounding and performativity ‘should’ occur. Funny, irreverent and completely to the point, they both

²² The New York Studio School of Drawing, Painting & Sculpture. Morton Feldman (1926-87) was at one point the dean of the school.

constitute a rupture in the constraining frame. *Streetwalker* is a conspicuous performance, an example of audible femininity. But of what kind of femininity and what do we hear in it? It performs a discordant and messy femininity; a femininity that clangs and bangs and bursts out of conventions. It crosses boundaries of conventional decency. *Streetwalker* demands attention with an indecent noise, and it does this on a street in which all women – ‘streetwalkers’, whether sex workers or not – are compromised by a gaze that we have to construct as male, for that street in Minneapolis is, like any other red-light street, an open-air theatre for sexual marketing.

Streetwalker is Fullman’s clear identification of constrictions. She locates the work’s origins in her application of visual art analysis – of Hoffman’s push-and-pull theory of mark-making, of “a flat plane pushing into space”, its edges both marking and pushing a boundary – into a performative sonic reality. Its tintinnabulation is a celebration of sonic indiscretion, a sensuous manifesto that rails against the silencing of women. I read *Streetwalker* as the beginning of Fullman’s own “*new insurgent writing*” (Cixous 1976: 880), the *écriture féminine musicale*.

Breaking and redefining frames: Joan La Barbara

In 1991, Joan La Barbara and Larry Austin recorded *La Barbara: The Name, The Sounds, the Music*.²³ It is a joint composition for voice and computer/tape technology. Divided into three sections, its first part – “The Name” – begins with Austin interviewing La Barbara about her name. She explains how “La Barbara” is adapted from the name of her first husband, Peter. We hear both Austin and La Barbara’s spoken voices in this short interview; we hear La Barbara speak about how she was drawn to the “flow” and “gesture” of her surname. Her birth surname, Lotz, is, she says, “flat” – which is to say that its one-beat syllable is inert, that it offers neither the velocity nor trajectory possible to power itself to another existence, sonic or otherwise. Austin invites La Barbara to sing her surname and, as she does so, the spoken interview gives way to a looped, multi-vocal performance of her name’s first syllable, “la”.

²³ Included on Austin and La Barbara, 1993. As this a joint composition, it follows, that Austin, too, is engaging in an act of *écriture féminine musicale*.

La Barbara's performance of this "la" represents the essence of *écriture féminine musicale*. In singing out these syllables, she seizes a word, a definite article, that is inscribed by the situation of grammatical femininity. By then going on to perform the breaking, stretching, sounding the syllable into a polyphony of "la"s, which is enabled by both expanded vocalising and computerised sound editing, she is, in Cixousian terms, engaging in an act of self-liberation, of a refusal to submit to the constraints activated by the fear of Lack. This is a "new *insurgent* writing" of a "...body that must be heard." (Cixous 1976: 880) And as each "la" gains traction, depth and resonance, so does the jouissance-fuelled rupture create the intoxicating possibility of the new, of *la nouvelle* (Cixous 1976: 875). While "la" is a feminine definite article in a number of Romance languages, it signifies not so much a feminine ending – to invoke Susan McClary's (1991) landmark analysis on the gendering of composition – but, in La Barbara's hands, a feminine beginning, and a self-created one, at that. One might say that, having been represented within the category of lack, that the feminine has now been excised from it. We could play with Lacan's formula of ~~the~~ woman²⁴ (the bar or strikethrough representing how women are not defined, like men, within a set or responses within the Symbolic), to arrive at what comes after an *écriture féminine* – a ~~lack~~.

The extended vocal technique in which La Barbara is expert has a wide significance and it offers multiple trajectories of enquiry. Within the corporeal realm of sound production, it expands the range of noise that the human body is capable of. In her case, La Barbara, a singer trained in conventionally classical methods, learned and taught herself these techniques: working with other composers, notably John Cage and Morton Feldman, she was, in turn, able to expand their music. Expanded vocals are also a method of extending the body and the ontology of the body; it is a way of describing a new bodily relationship to sound and to sounding, of being in the world. I would also say that, in La Barbara's case, it is a way of articulating a new physicality. Working with composer Alvin Lucier on *Still and Moving Lines of Silence in Families of Hyperbolas* (1972), La Barbara speaks about the manipulations of sound waves through

²⁴ Lacan's expresses this in *Seminar XX: Encore 1972-73* (Lacan 1985: 137) as "~~La~~ femme". In this seminar, particularly the sections entitled "God and the *Jouissance* of ~~the~~ Woman" and "A Love Letter", Lacan writes that the woman does not exist (as a discrete entity) because the category is positioned against phallic sexuality as a way of creating a definition. This is a rhetorical provocation that nevertheless attempts to suggest new ways of thinking of feminine sexuality. Lacan suggests that the unruly *jouissance* breaks this phallogocentric discourse.

physical and sonic interventions that allows sound to attain volume in terms of loudness as well as in sculptural volume:

[*Still and Moving Lines*] consisted of his playing sine tones from four speakers placed around the periphery of the area. I would move into that area – we did a lot of talking about things before. In this rehearsal [Lucier] would say, “Just see what you can do with this.”

So we went out into the space... we were rehearsing in Merce Cunningham’s studio. I went and I worked in the space for a while and then when I was finished, I came back and he said, “Now tell me what you were doing.” I said, “The first thing I did was to find my acoustical centre of the room,” which was not necessarily the geographical centre. It was where I was being bombarded equally by these sine tones that were all in unison.

Then by just singing with the sine tones and microtonally shifting away from them I could move them, push them away physically because sound is in waves and, if you are in unison, those waves are going simultaneously. If you go slightly microtonally apart, they begin to bump into each other. [...] What I could do then was to move the sound away from me with my voice. Alvin found that *fascinating*. That became my part of the piece. Whenever he talks about it, and he does in interview and in writing and everything, he talks about that. He is another generous composer. (Marshall 2016b: 00:50:00 et seq)

Expanded vocalising is a technique that offers new sonic palettes. Gelsey Bell mentions some of them: “Glottal clicks, multiphonics, ingressive singing, reinforced harmonics, cross-register ululation, alveolar and dental clicks.” (Bell 2015: 72) On *La Barbara: The Name, The Sounds, the Music*, the singer speaks about using sounds that come from models outside the ordinary range of human – and female – music: animal and natural sounds, electronic sounds, “non-pretty” sounds. It is a way of taking control and venturing forth, away from the circumscribed boundaries of music, of noise, of gender of conventional and, the aesthetic strictures of what might be pretty. These are all frame-shattering strategies and they are necessary, pivotal, in fact, to La Barbara’s ideation, access and development of this radically expanding music.

Ordinarily, an instrument imposes a frame of behaviours on its instrumentalist. This frame is governed by historical precedent, by technology (how one generates sound), and cultural mores. The kind of hyper-vocality (or meta-vocality) which La Barbara practises thus represents a radical departure from history, for it is a vocality outside the

logic of classical convention. It is not, as Bell puts it, “calcified in a tradition”. (Op. cit.: 73) It is the same kind of meta-technique that we see in Lockwood’s *Piano Burning*, in Oliveros’s social scores (especially her *Sonic Meditations*); in the sonic materiality of Radigue’s durational works, or the longitudinal strings of Fullman’s Long String Instrument. It is no coincidence that La Barbara titled her first LP *Voice Is the Original Instrument* (1976) as a way of drawing attention to the acute importance of vocal noise, of a body-centred sound. Indeed, the live-recorded album is a soundscape of explorations: *Voice Piece: One-Note Internal Resonance Investigation* (1974) maps the body’s sounding cavities, the different resonances of the head, the throat, the thorax:

Joan La Barbara: [...] I know with my *Voice Piece: One-Note Internal Resonance Investigation* (1974) I was performing it and John Cage was in the audience. That piece requires a great deal of concentration because I am moving a central tone into various resonant spaces in my face and body and also working on –

Louise Marshall: It sounds quite *bel canto*, actually.

Joan La Barbara: Yes, but *bel canto* [requires] isolating the resonant areas instead of combining them. In *bel canto* you combine them to make this pure, golden tone but also dealing with overtone focussing and multiphonics and all of this. At a certain point, I felt myself leaving through the top of my head and I said to myself, “Pull yourself together. John Cage is out there in the audience. You can’t leave your body at this point.” (Laughter)

I did manage to ground myself and finished the performance. Cage came up to me afterwards and said it was marvellous and, “Do you want to work with me?” And I said, “Yes, of course.” That is another story. He gave me *Solo for Voice 45* (1970) from the *Song Books*. A very, very rigorous work. Eighteen pages where one has to make a lot of decisions and a lot of work to get into it. I mentioned that situation to Pauline [Oliveros] sometime later. She said, “You need something to keep you grounded.” I think I had found an amber bead that sat on a burlap rope around my neck. It sat right at my breastbone. For many years afterwards, I would never perform that piece without that necklace.
(Marshall 2016b: 00:58:00 et seq)

Vocal Extensions, the only composition on the LP to utilise electronics, is exactly what it says. Having established the capacity of the body to sound by its own agency in the other compositions on the LP, the work sends out new probes of sound as a way of interrogating external spaces, and as a way, too, of extending, the body and moving beyond conventional gender norms of a vocalist's range and timbre.

For composers such as Cage and Morton Feldman, who have, themselves, written for extended sound palettes and have therefore required performers capable of this type of work, La Barbara has been an important and expert interpreter. In some of these works – for example, *Solo for Voice 45* from Cage's *Song Books* or Feldman's *Three Voices* (1982) – it is legitimate to consider La Barbara as owning a status that is close to that of co-composer, given the level of interpretation that these works require. Cage, certainly, seems to have been generous in his collaboration with La Barbara, trusting her decisions on all things, including the minutiae of his complex scores. However, there are certainly points where any boundary that separates composer from performer have been blurred and La Barbara herself acknowledges that this has led to at least two situations regarding major works by (now) major composers in which her input has not been recognised. Some composers, especially in the transmission of non-traditional scores to their musicians – I am thinking here of Éliane Radigue's *OCCAM* series – manage this situation well. The vexed question of authorship is one that is not unknown within any musical situation which has an improvisatory component. While I address my analysis here to La Barbara's work as a composer, rather than as an interpreter of works by John Cage, Morton Feldman and Morton Subotnik, we see that these blurred lines around authorship were a contributing factor to her becoming a composer in her own right.

Classical music – its methods, performance practices, its repertoire – was the major frame that La Barbara had to negotiate. Although as a teenager, La Barbara sang other types of music (a way of testing boundaries) while growing up in Philadelphia, she was struck by hearing musicians improvising and so “stretching the acceptable sonic terrain of their instruments”: the singer Cathy Berberian, whose recordings La Barbara heard, was one of these. At college, contact with a synthesizer created a new tonal palette for experimentation but, at this time, not composition. Simultaneous to this was an increasingly serious immersion within the classical singing world. She had a well-connected teacher, Marion Szekely Freschl, who helped La Barbara get accepted into

Boris Goldovsky's opera workshop on the east coast. The trajectory pointed towards an operatic career. La Barbara wanted to escape.

Louise Marshall: It was clear to you at that point that this is the road in which you had to make a decision. One road went that way, the other went that way.

Joan La Barbara: Yes. I had already by that time become enamoured of experimental music and experimenting with the voice. I was starting to ask questions about what was I doing in opera? I was learning these roles that had been done for centuries and learning them the way people were doing them. *I just felt more and more being controlled. My impulse was to free.*

And so when she [Freschl] left – she always went to Europe in the summertime – when she left I called up this workshop and I said, “My voice is broken. I am not coming.” They said, “Don't worry about it. We have many teachers here. We can fix it.” Thinking, “Oh,” I said, “No, no, no, I'm not coming.” I ran away literally from the classical music world at that point and gravitated toward this more experimental fusion. There was a lot of work between jazz fusion and new music.

Louise Marshall: You never spoke to Marion again?

Joan La Barbara: *I never did.*
(Marshall 2016b: 00:34:29 et seq. My emphases)

When La Barbara first told me about Freschl, a few weeks prior to our interview, she described this powerful figure with affection. She mimicked Freschl's strong Hungarian accent and declamatory manner – “I vill fix your voice and zen I vill die!” – but it was clear that teacher and pupil both had shared a great affection for one another.²⁵ Freschl was important for her, and was, evidently, hard to resist – hence the abrupt breaking of the relationship. There is a drama here that mirrors that of Radigue's story about the near-loss of her music lessons in her childhood. Both concern strong, female teachers. Perhaps Freschl dominated, while Mme Roger enabled; the first closed down

²⁵ Freschl, was, La Barbara told one interviewer, an imposing figure: “She was a great, big, six-foot-one Hungarian contralto and she called me ‘Jon’. ‘I vill fix your voice, Jon, and zen I vill die.’” (Gonsler 2016) See: www.redbullmusicacademy.com/lectures/joan-la-barbara-lecture. (Last accessed 4 January 2018)

possibilities even as she opened others, while the second opened up a world of music to a child.

Breaking and redefining frames: Annea Lockwood

Joan La Barbara is her instrument; Ellen Fullman invented her instrument; and Annea Lockwood destroyed hers. A shared interest in process links the three composers. Lockwood, who, for a period in her early compositional life in the late 1960s to early 1970s, created piano music that necessitated the destruction of the piano itself, reflects on what was being destroyed and the process involved. The push against any defining frame continues in Lockwood's compositions. From the 1980s to the present day, Lockwood's compositional sound sources have included great bodies of water – the Hudson or Danube rivers, for example, or the sonifications of sounds normally inaudible to the human ear: volcanic vents on the ocean floor, geyser sounds, high-frequency squeaks from the natural world, ultra-sonic bursts from tree trunks and solar oscillations. broken out of a human frame. This expansive approach is a way of locating the female compositional corpus in an ever-widening world. Lockwood situates the listener in the potential immensity of a sounding universe, with all the social, political and cultural implications that follow. This practice should be read as a logical continuation of a movement of expansion that had its seeds in both sonic experimentation and feminist-inspired composition from the late 1960s onwards.

All these actions are examples of a breakage from past constraints. They all constitute radical trajectories away from what once was to what could be. These breakages of a constraining frame lend themselves to expression within the terms of Cixous's feminine writing, now translated over to an idea of feminine composition.

The importance of the interview setting as a containing and creative space that enables information to be shared will be discussed as will some salient issues that concern the structure of narrative. Indeed, in terms of the psychoanalytic situation, the idea of a frame is explicitly invoked by José Bleger (1967) as a perimeter that enables the psychoanalytic process to commence. Discussing the quality of the sonic will lead to my uncovering of the sonic artefact as a listening space that offers a tool for developing new ways of listening – an informed and expanded under-listening (that is, a listening to the

nuances, subtexts and other contexts) that takes its lead from Pauline Oliveros's practice of Deep Listening – and consists of one of my contributions to knowledge. The sonic artefact will be developed more fully in the next chapter, where it is theorised against Pierre Schaeffer's earlier model of acousmatic listening and the resulting sound object.²⁶ (Schaeffer 1966, 2017)

These strategies are ones that extend sound and, therefore, its availability for new compositional possibilities. (De-)composition also recognises a changing state of materiality and of sound and all the sonic consequences that flow from these changes. We see and hear this process illustrated (at times, dramatically) in the piano treatments of Annea Lockwood, a trained concert pianist who, for a period in her career, submerged pianos, planted pianos and burned pianos as a challenging (and hugely meaningful) way of composing soundworks.

When Lockwood, in our interview, makes an oblique reference to these difficulties when we speak about Scratch Orchestra, an organisation that, despite its democratic ideals, had its own hierarchy and was tightly controlled by its foundational composer, Cardew, she describes herself as not being a “good follower” (see p. 86). I read and hear in Lockwood's words a feminist statement of a need to maintain her artistic independence from an organisation with its own demanding and powerful leader already in place: she makes an active and aware choice not to be subsumed in the personal surrender that being involved with the Scratch Orchestra would have required of her. In Chapter Three, Oliveros speaks – and names – her own experience of being locked out of studio practice by virtue of being a female. (Marshall, 2016c: 00:29:30) As we have seen through the scholarship of Bosma (2006: 101), Andra McCartney and Ellen Waterman (2006: 4), the problem is located as one of gendered domains:

Feminist music scholars have accounted for the ways that “electronic music is... a culmination of two male domains, composition and technology” [Bosma], demonstrating that “overwhelmingly, women have been marginalised in fields where creative work in sound and music meets technology” [McCartney and Waterman]. (Rodgers 2015:7)

²⁶ “*L'objet sonore.*”

The interviews in this research tackle this problem in terms of using the idea of framing as a way of acknowledging women's journeys to a place of work and to challenge the historically-bounded conditions of greatness as a way towards uncovering the contributions of women artists.

The conditions of possibility: networks, economics and the recognition of the possibility of a life as an artist

In this section I consider the five composers' narrated experiences and approaches to work in order to make explicit their early realisations of artistic/compositional potential/work outside of the family. In hearing (or reading) their direct voices, we hear something of the timbre of their voices as they reflect on their own journeys towards their mature sonicity. In this way, we hear something of each of their frame-breaking activities, be that in choice of career or the type of music practised. Every artist needs to make the place and shape the space in which to work. No artist will apprehend the possibility that such a place might exist at the same time in their lives. They will each step outside themselves at different points to recognise that an alternative space of creation has a potential existence.

Could Éliane Radigue, as a child or young woman, envisage herself as a musician, a composer? She would have loved to, but no, not at all: Radigue jokes that her father could, perhaps, have conceived of her as an accordion player – a “*saltimbanque*” or street performer – although the implication is that this is too far-fetched to be credible. (Marshall 2015c) Joan La Barbara describes herself as “an alien” within her family for her involvement in music.

Louise Marshall: [...] Were your family musical?

Joan La Barbara: No.

Louise Marshall: Were you a slight oddity here?

Joan La Barbara: Definitely an oddity. Yes. *I always felt an alien.*
(Marshall 2016b: 00:04:30. My emphasis)

She states of her early years in Philadelphia: “[It] really was growing up in an atmosphere where they thought one way and I thought another. Although they were very supportive of me and my work, I really don’t think they expected me to go into music professionally.”

In contrast, the young Annea Lockwood could readily imagine a life in music-making and composition: her musical talent was identified and nurtured from an early age by her family and teachers. She speaks of her economically secure professional family of “passionate music lovers” (Marshall 2016a), of early forays into composing small pieces for a student string orchestra, of university in New Zealand which was followed by a scholarship in piano and composition to the Royal College of Music in London. She says: “I guess as early as the experiences of writing for that little string orchestra in Christchurch when I was twelve sort of consolidated my view of my identity as being that of a composer, so from then on, I had absolutely the intention of being a composer.” (Op. cit.) It was only later, after a thorough grounding – through both study and participation – in the fast-developing world of experimental music and its methods of performance during the late 1960s that she broke away – in a dramatic manner – from conventional piano recital and into performative actions that include glass smashing, piano burnings, drownings and plantings.²⁷ Lockwood, like La Barbara, needed to reach what we might call (*pace* Cixous) a *new insurgent* composition, and to break from the practices and hierarchies of the system of classical music in order to do so. This should not be understood as a rejection of what has gone before, a complete erasure of any sense of formal music-making to begin a new music-making at the level of a cultural year zero, but rather the cultivation of a creative and intellectual agility that allows the skills and knowledge of a methodological training to be reworked, revised and recrafted.

Ellen Fullman, growing up in Memphis, Tennessee, came to composition after a tertiary-level training in fine art (sculpture and ceramics) and performance. The haptic basis of her background is reiterated in Fullman’s creation and continual refinement of her Long String Instrument, which I read as a developmental continuum of her early work. However, the realisation that a creative life was a possibility came from watching

²⁷ The piano burnings, drownings and plantings are collected in Lockwood’s *Scores for Piano Transplants* (1968).

her father building his studio. In a lyrical memory of her father, a painter unable to follow his profession, she speaks of him building his “personal dream” – a north-facing studio that has good light. Fullman says:

[My father] did [practise as an artist] a bit. With the GI Bill, you could attend college after the war, but he was married and my parents had my brother soon thereafter and it was just too much.²⁸ He just stopped pursuing a degree. And then my parents didn't like the weather in Pittsburgh and, you know, my dad said that he would never have to shovel snow, rain, in Memphis so they went back to my mom's family roots and got support that way and my dad went into advertising. He did a bit of painting after that, but I would say that the work wasn't as serious, but I really love his earlier work when he was about twenty years old. I have these paintings and I think they are very, very sensitive and [they] influenced me a lot. *And I began knowing that I would be an artist when I was five. I just always... there was nothing else.* I loved it so much. I loved... my dad built himself an outdoor room, studio; he built a place for the car and a room attached to it. *And... he made, he kinda built, his own miniature, like, dream, his own personal dream and made it all himself.*²⁹ He had northern light, which is good for painting, this great big casement window and I always loved that, the crank, with the window swinging out, and just the smell of oil paint and the excitement and fun of manifesting something and I was hooked. The excitement of waking up in the morning and looking at what you made the day before. (Marshall 2015a: 00:03:00 et seq. My emphasis)

She stresses his work: he did it himself; she invokes the smell of the oil, the implicit sound of the window cranking open. It's a place of excitement and discovery and she is “hooked”. Fullman's resonance with her father's *techne*³⁰ is reiterated in her own artistic trajectory: beginning in fine art faculties, she goes on to discover the sonic possibilities of long strings and she creates and builds her own instrument. Fullman's signature Long String Instrument has undergone many modifications since she began long strings work in the early 1980s. The instrument's development can be read as a *techne* auxiliary to

²⁸ Fullman's brother, Robert (Bob), was born in 1947.

²⁹ Fullman's account of her father's activities echoes her lyrics in “Worksong” on the album *Ort* (Fullman and Sprenger, 2004).

³⁰ Informed craft ability, a term that applies to both Fullman and her father.

that of composition itself: a hands-on, trial-and-error crafting, making process that begins with starting. Fullman talks proudly, for example, of the instrument's resonator box, which she built herself after attending woodwork classes. All this is work to be sung about, to be acknowledged and celebrated. Fullman's poetic statement of this can be found in the lyrics of "Worksong", her song on the album, *Ort*: "*I found a chair on the street/ found some wood/and built a table.*" The words express the possibility of an immediacy of art-making and I hear a direct resonance with her creative father whose dream is wrought in "miniature", while Fullman's is made huge – the fully-built Long String Instrument can reach 120 feet in length.

For Radigue and La Barbara, the question on how to be a composer or an artist revolves around impossibility. In the former case:

Éliane Radigue: [My family] was a very simple family, very *populaire*. Music was not... Yes, my father would have dreamed of me to play accordion (laughter)... rather than to be attract by the piano and other instruments and classical music, no, no, no. Hmm?
[...]

Louise Marshall: As you got older, did you think about making a career as an artist? As a musician? [...]

Éliane Radigue: No, no. No, I had no idea of that. No, I had no idea it was possible. I love music, I was so happy to play music, but I could never dare to have the slightest idea of making a career with music. (Marshall 2015c: 00:21:30 et seq)

The family support for the young Radigue's involvement in music was deeply ambivalent. As we have seen, her mother, jealous of her child's affection for her teacher ("Mme Roger, she was my goddess, you know!"), summarily ended her lessons (Marshall 2015c). In an astonishing turn of events, Roger continued to teach the girl in secret and without fee. Radigue has never forgotten this. Nearly eighty years after, she still expresses great affection for her teacher:

Ah, that [Mme Roger] was a wonderful person. Her daughter [Renée Roger] was... a *chanteuse lyrique*, lyric singer, you know [...]. And so she [Mme Roger] was very generous person, of course. She was, at that time she was, I would say for me she was quite old, of course. Now, sixty years is just so young, but let's

say she was in her sixties. (Laughter). [Mme Roger's] mother was still alive also and I know... that was the best part of my life at that time.

(Marshall 2015c: 00:12:00)

This is a key passage in Radigue's narrative. In it, she encompasses a swathe of time and spatial points within it: her own childhood; the (old) age of Mme Roger, whose own mother is still alive; and the real daughter of Roger, herself a musician. (Éliane's identification as a fantasy daughter to Mme Roger is rendered implicit by the line-up of points that triangulate the players in a space of social relations.) In the interview, Éliane's real mother, Mme Radigue, is close by (after all, the "*Hein?*" has been sounded only moments prior to this), looming like a shadow in her unstable and uncertain presence. Éliane describes the women-centred world of a small child, and yet she also identifies danger. This is why the Roger family is located in such temporal detail. The mother of Mme Roger, Mme Roger, Renée Roger: three generations of women are summoned into being in Radigue's testimony. Radigue describes it as a continuous line in that it stretches backwards in time (the mother, the older generation, is still alive at the time of Radigue's lessons) and extended forwards in time (the daughter, implicitly aligned with young Éliane is a successful musician, able to utilise her own voice, something that Éliane, silenced by the force of the "*Hein?*", cannot yet do): they protect (and continue to protect, given the sonic artefact's heterochronicity, its capacity to express the past in the present and the present in the past) the child Éliane. This trio constitutes the safety of a containing space and they do this by wrapping a length of years around the child.

When Radigue, as a young teenager, is given a season ticket that will allow her to attend matinee concerts in Paris, she incurs the displeasure of her mother. However, her father, otherwise a silent presence in our interview, enables her to attend by the simple expedient of being available to escort her home after the concert's ends. This seems to be a tender, if unsounded, act of kindness, love, and recognition of his daughter's voracious musical interest. Radigue, who will soon make an early exit from the controls of her family by becoming pregnant at the age of seventeen, will come to compositional work in her late twenties. I hear the sound of this break contrasted with her mature work which involves slow unveilings of sound and the relationships between the sonicities that are exposed.

Pauline Oliveros, unlike Radigue, was able to see herself as a composer from an early age. Raised by her mother and her grandmother in Texas in the 1930s, after her early years, her father was absent from the family. Already a multi-instrumentalist by her early teens, she saw composition as a confirmation that she will follow a parallel path:

Pauline Oliveros: Whatever I wanted to be, [my mother] was fine with it. Yes, that was fine. *You have to realise that composing was not something that people did.* If you were going to be a musician, you either played an instrument or you were a musicologist or a listener or something. Composing was something...

Louise Marshall: Way down the line.

Pauline Oliveros: Yes, I announced that I wanted to be a composer when I was sixteen.

Louise Marshall: You were fixed in your mind at that point?

Pauline Oliveros: Yes, I was.

Louise Marshall: Tell me some of the things you had been composing at that point.

Pauline Oliveros: I hadn't, *only in my mind.*"
(Marshall 2016c: 00:14:15 et seq. My emphases)

Oliveros's words are a ringing statement of her determination. They echo, too, her knowledge that she was not going to follow a conventional life-trajectory of heterosexual marriage. She jokes about how her grandmother suggested that she "set [her] cap for a certain guy, you know, boy", for example. (Marshall 2016c: 00:09:45) (Oliveros's laughter as she tells this story means that this was not going to happen.) Unlike the backgrounds of the other composers, Oliveros had been able to see

something of a successful economic model in music-making. Thus, Oliveros had a strong example of a female (if not feminist) economy.

Concluding remarks

Using testimony from my five composers, this chapter has concentrated on the strategies that they have devised to create work. A necessity for them all has been to identify existing frames that they may dismantle them and move forwards into a *jouissance* that I identify as a condition of *écriture féminine musicale*. A key to this dismantling in all its forms, and in its narration within the interview encounter, is sound in the sonic artefact, which creates a depth of sonority – historical, social, sonic – that expands Oliveros’s Deep Listening into new territories.

The interviews themselves are sonic presences which bring their participants into a shared space of sound. This rich, relational space is that of the sonic artefact, the subject of the next chapter. The sonic artefact will allow me to ‘deep listen’ to the interdisciplinary space that supports and invites questioning from a range of discourses. In the next chapter, I will use this practice to pull at the framework of Pierre Schaffer’s (1966, 2017) theories of the acousmatic practice in a way that identifies and interrogates the limits of his theories around reduced listening and the sound object.

Chapter Five: Hearing the sonic artefact

This field is a real entity which, diffused everywhere, carries radio waves, fills space, can vibrate and oscillate like the surface of a lake, and ‘transports’ the electrical force.

Carlo Rovelli, describing the electromagnetic field (2016: 5)

What secret is at stake when one truly *listens*, that is, when one tries to capture or surprise the sonority rather than the message? What secret is yielded – hence also made public – when we listen to a voice, an instrument, or a sound just for itself? [...] What does it mean to exist according to listening, for it and through it, what part of experience and truth is put into play? What is at play in listening, what resonates in it, what is the tone of listening or its timbre? Is even listening sonorous?

Jean-Luc Nancy (2007: 5)

At the beginning of Chapter Two, I asked how we might develop a listening practice that hears and analyses the sounds that locate us within a world of sound and its sonic referrals. Svetlana Alexievich (2017: xviii) describes her interlocutors as being wrapped within an “invisible world” (Alexievich 2017: xviii) that constitutes their individuated experience, so how might we begin to hear something of this unsounded space? In this chapter, I develop my concept of the sonic artefact, which is offered as a new way of theorising of space and communications in an interpersonal field. The identification of the sonic artefact grew out of my practice, which has involved conducting and listening to research interviews and applying the methodologies of psychoanalysis, oral history and feminist theory to the generated data. As such, the sonic artefact is a result arising from the use of methodological tools of a feminist Deep Listening. In this way, I aim to extend and augment Pauline Oliveros’s listening practice to the hearing of systemic sexism and patriarchal hegemony within the musicological canon which formed the precursor conditions for my five selected composers to develop their own, singular compositional strategies. But those methodologies – being theoretical – are not sonic.

My realisation of the deep level of the *sonic* material of the interviews and what it communicates came when I interviewed Éliane Radigue in 2015 – a composer for whom the materiality of sound, alongside its communicative capacity, takes on a profound meaning – and I realised that there was a sonority to our encounter that I had, at that point, not fully regarded. In Chapter Two (pp. 119-120), I write about Radigue’s “*hein?*” (and with it, its eruption of historic material specific to her and communicated to me), but here I explain it as the beginning of my formulation of the sonic artefact which I now redraft in a larger context. The sonic artefact is, at a fundamental level, a way of re-sonifying a prior experience and it allows a way of listening to sound itself and of hearing and drawing meaning from sonority rather than semantics. And if we theorise the artefact’s trajectory as an eruption that bursts, *jouissance*-fuelled, from the realm of the Symbolic, to a present tense of all manner of subversive soundings, then we approach what we might call, following Cixous’s (1976), an *écriture féminine vocalisant*– a freer and unfettered speech.¹ By adopting a critical listening to the sound of sound, the sound of language, the potential for the unearthing of new and as yet undiscovered sonic strata and meaning is created.

Hearing, listening, disruption

Time and again – in printed essays, in compositional practice, in lectures and in teaching situations – Pauline Oliveros stressed the difference between hearing and listening. One of her last statements of this distinction was made a year before her death, in a TED talk filmed for global distribution. “The ear hears, the brain listens, the body senses vibrations,” she said. (Oliveros 2015b) If hearing is, primarily, a physiological function of auditory apparatus, then what of listening? Listening is the *processing* of sound, in all its simultaneous characteristics. Listening is interpretative, analytic, subjective, sensuous, whereas sound is immaterial and unstoppable, a disrupter of boundaries. Like the richly connective electromagnetic field that the physicist Carlo Rovelli describes above, sound fills space, it links, it sounds and resounds. To quote Nancy once

¹ I thank Salomé Voegelin for supplying me with the correct French word.

more, “[s]ound is also made of referrals: it spreads in space, where it resounds while resounding ‘in me’”. (Nancy 2007: 7)

Sound, for Nancy, forms an omnipresent and invisible network of signifying systems, each one offering a complex chain of meanings that feedback (*renvoi*) to one another – in other words, playing with temporality as the present-tense *renvoi* speak to what has already-sounded, even as it creates the possibility of future soundings. “What secret is at stake when one truly *listens*?”² Nancy rhetorically asks us, who, as readers occupy, firstly, a world of written visual references, with the sonic following behind. We could answer, a wider world, a wider understanding in which the “tendentially methexic (that is, having to do with participating, sharing or contagion)”³ (Nancy 2007: 10) For Dominic Pettman, the apprehension of sound (its vibrations entering our bodies and consciousness by our ears or across the membrane of our skin) and the sonic environment has an equivalence to the Cartesian *cogito*. When he speaks of how we are “born *in* and *of* sound,” the situation that he describes is not so much one of Descartes’ *cogito ergo sum* as it is an *audio ergo sum* and this has implications for our ontological wrappings. (Pettman 2017: 1)

Our first prenatal experience is overwhelmingly aural: we become embodied and enfolded within the squelches, rumbles and pulsing thumps of the mother’s body. [...] Then, after leaving the womb, we learn who we are by the sound of our name and names of others. (Ibid)

We are all subject to the “sonic feeling” (op. cit.: 2): sound surrounds us, and our bodies (and subjectivities) are permeable membranes that negotiate these sonic exits and entrances. Sound holds and links us all in a vast, vibrating network of the sonorous. Oliveros’s Deep Listening practice asks its participants to make that initial leap of into the deep end of a sonorous pool in which sound is unfiltered, unblocked, unmediated.⁴ For Oliveros, to hear – without judgement – a totality of sound is a precursor to hearing others and to making music.

² His italics.

³ Nancy sets sound, and its intangibility, in opposition to the operation of visual references, which, he says, are “tendentially mimetic”. (2007: 10)

⁴ There are clear dangers in unmediated sounds that assail the body. Cusick reiterates the sonic linkage of the human world as a way of analysing sound, sonic assault and political power: “[A]ll

Oliveros, Nancy and Pettman have differing analyses of sound, but they all share a basic premise: that sound is something that is there in space. Indeed, it is a parameter that describes the oscillating, pulsating field that Rovelli writes of. But as soon as one introduces any notion of space, it is necessary to think of how it might be structured. Pettman or Nancy, working within language, would recognise that that structuring and signifying medium would involve words. Oliveros, working within musical sound, would use compositional form as a structuring methodology. Both these approaches provide theories of space (or topology). In the case of sonic space, it allows an interrogation of that sound and an elaboration of its meanings. Writing broadly to support the creation of an epistemological space in which knowledge of differing types is produced, Henri Lefebvre writes that: “[...g]roups, classes or fractions of classes cannot constitute themselves, or recognize one another, as ‘subjects’ unless they generate (or produce) a space.” (Lefebvre 1991: 416-7) The same is true of sound and Lefebvre’s production of a space is akin to a theory that frames this space. Boundaries, limits, neighbourhoods, points and their affinities:⁵ these are all constitutive of this topology.

As we saw earlier with regard to the psychoanalysis of Édith Lecourt (1983: 577), the relationship between the self and its boundaries can be clearly articulated in sonic terms. In her description, sound broaches all our defining boundaries or “envelopes”:⁶

Sound passes through all our ‘envelopes’: the body, the house, the city, and so on. It reverberates, it amplifies, it rushes, it goes out, or echoes us, without allowing us to be able to limit it, or even protect ourselves from it. It is inside and outside [of us]. [...]

human beings, whether hearing or not, are immersed in a vibrating world. Vibrations that human ears cannot perceive, nor human brains process, nonetheless affect our bodies. [...] We vibrate sympathetically with other entities in our environments, as they do with us. It is our own sympathetic vibrations (mostly in the small bones of our heads) that we describe as sound...” (Cusick 2015: 278)

⁵ Paraphrasing Burgoyne (2011), who uses the nineteenth-century scientific term (*pace* Goethe), “elective affinities” as a way of thinking about how points in a space might cluster.

⁶ Lecourt adopts Didier Anzieu’s 1976 use of the term ‘envelope’ to describe boundaries of the body and mind, although she advances the use of an alternative phrase – the “*halo sonore*”, which has the advantage of stressing an essential porousness of the boundaries around the sonically-inscribed identity. (Lecourt 1983: 578)

Would it be possible to consider [sound] to be similar to [the sense of] smell? (Lecourt 1983: 577, my trans.)⁷

And because sound knows no limit, it is not without threat to the boundaries that help us define and defend our sense of sonic self – our “*identité sonore*”. (Ibid: 578) Lecourt speculates that sound is closer to smell in that they both share this ontological unstoppability. When Joan La Barbara, for example, responds to a comment on the sculptural (as opposed to quietness or loudness) volume of sound, she recognises its omnipresence:

[Sound] becomes physical as a real object. The way that [Virginia] Woolf wrote about the little airwaves [in *To the Lighthouse*], you heard them, you saw them, you felt them, although no one ever heard or saw or felt them. She was imagining these. For me, they were as real as the way she described them. I wanted to try to create them, generate them in sound and get the creepiness of these little airwaves, which were the only things that were left inhabiting the house at that point. (Marshall 2016b: 00: 33)

La Barbara conjures up the analogy of air – space itself – to describe the sonic. Her airwaves are mobile, probing forces that are unconstrained in their spatial capacity.⁸ If sound is boundless, as Lecourt acknowledges it is, then her definition of an individual sonic identity⁹ is a definition that acknowledges the possibility of that sonic identity being ruptured, of being disarranged by sound. The sonic identity that she defines is gathered around sonic phenomena that has physical (rhythm, attack and other “*geste sonore*”) as well as historical (cultural, group and familial) characteristics. And because sound is relational, Lecourt then proposes the idea of the self-sound interval (“*l’intervalle sonore du soi*”) as a sonic dialectic that hears the interaction between a series of oppositions – interior and exterior, near and far, subjective and objective – in relation to the

⁷ “Le son... passe au travers de toutes nos ‘enveloppes’: le corps, la maison, la ville, etc., il se répercute, s’amplifie, s’engouffre, s’éteint, ou nous revient en écho, sans que nous soyons en mesure de le délimiter, voire même de nous en protéger. Il est intérieur et extérieur.” [...] Peut-être se trouve-t-il proche en cela de l’odeur?” (Lecourt 1983: 577)

⁸ La Barbara’s musical work – for example, *Still and Moving Lines of Silence in Families of Hyperbolas* (1972, composed with Alvin Lucier) or *Voice Piece: One-Note Internal Resonance Investigation* (1974) – explores the fluid boundaries between sounded voice, soundwaves and space. (Marshall 2016b, Volume II: 00:50:00)

⁹ “...*identité sonore individuelle*.” (Lecourt 1983: 578)

object. (Op. cit.: 1983: 578) She frames the self-sound interval within a psychological matrix: how well a person recognises and processes their sonic environment is a function of ego-health. (Psychotic thinking, in standard psychoanalytic thought, is characterised by its inability to triangulate relations and thus it operates in an anguish of dualisms.)

Characteristics of the sonic artefact

For the self-sound interval to be analysed, it follows that the body is a sonically-situated entity: it is surrounded by sound and it recognises the interplay of interior and exterior sounds. Lecourt's formulation allows for the possibility of that body's sonic integrity – in its “*halo sonore*” (ibid.) – being torn by sound sources *outside* it. Crucially, Lecourt does not consider that this rupture could come from *within* the body – i.e., through that person's own telling. Lecourt is, of course, writing about the individual who has, in effect, gathered their constituent sounds together in a way that describes them as a coherent sonic body. (The interval is another way of thinking what that person is not.) But what of when that sonic body breaks in some way? And what is the trigger for this breakage?

The trigger that has the potential to break open the former coherence of the sonic body is a narrative, or an aspect of narrative, the precondition of which is the exchange between listener and speaker in the interview. The trigger is to be found in the sonic artefact, which, rather than focusing on narrative per se, instead focuses on rupture, and how that rupture is expressed sonically. The sonic artefact is not an object or a space, so much as an action that collapses temporality and narrative. It does this within a third term – the space between two people in an inter/view – and it does so with an energy that powers an *écriture féminine*. My formulation is a key finding of my research, with the sonic artefact put forward as a tool with the potential to rupture (in Cixousian terms) the cage of symbolic discourse with its privileging of fixed meanings. In terms of my research, theorising the sonic artefact has allowed me to extend a Deep

Listening practice in a way that allows a rethinking of the sonic within allied fields: oral history testimony, (de-)composition and psychoanalytic theory.

I propose that these points define the sonic artefact:

1. It is heterochronic in that it exists on multiple, intersecting timelines: Éliane Radigue's *hein*, for example, creates a dynamic space capable of holding simultaneous temporalities – a sonic time-travel device;¹⁰ it is overdetermined/unfinished (Freud, Portelli) in that its meanings are infinite;
2. It is set in motion by/the product of the relationship (Portelli's "inter/view") between (at least) two people and it is energised by their interaction;
3. It is a third term in the relationship of two people: the space of transformation (Bollas 1978), of listening, and of separation; and, because we speak of space, we need a theory of space and this can be found in a general theory of topology (Burgoyne 2011);
4. Using psychoanalytic theories of transference, we could posit it is a space of transference energy, in which residues of emotions from previous events and people are introduced into this new space. Applying topological theories of space to the sonic artefact highlights its relational capacity;
5. The sonic artefact is distinguished from Pierre Schaeffer's sound object (*objet sonore*), which is posited as an audible, sonorous thing that is reached by the process of reduced listening (Husserl's phenomenological *epoché*);
6. It offers the possibility of a communicative space in which composers and improvising musicians, through the use of listening and an intuition informed by a transferentially-sensitive attention, might locate themselves. Examples of this mode of working can be found in Oliveros's (de-)compositions (for example, the *Sonic Meditations*) and in Radigue's scoreless *OCCAM* series, in which she sets up parameters for a

¹⁰ I thank Cathy Lane for the image of the time machine.

compositional collaboration to happen. One of these parameters includes the supply of a visual image to a musician to translate into sonic terms. (Nickel 2016)

Having delineated these six aspects of the sonic artefact, I will now discuss examples of their appearance and analysis in my interviews. This will be done as I discuss the interaction of the sonic artefact with my methodological approaches. I begin with the first intimations that there was something happening in the interviews that I was not prepared for.

“Hein, Éliane?”: First soundings of the sonic artefact

I have described in Chapter Two how, in my interview with Éliane Radigue, something unexpected entered our encounter when she narrated to me a dramatic event that had occurred in her childhood. This moment (what I refer to as the *“Hein?”* moment), occurred when Radigue was telling me of an attack made upon her, then aged about eight, by her mother. It is a pivotal moment in the interview: she communicates the weight of shock and anguish she felt at the moment that her mother sought to sunder her – Éliane – from both her music lessons and her beloved teacher, Mme Roger.

Reproduced below is the first occasion of Radigue’s *“hein?”*. As before, her English has not been corrected, although I have inserted clarifications in two instances.

So I had a double personality. At home, I was completely under the... my mother’s pressure, which was very dominant. And, you know, that was once she says so, she says something, whatsoever I was thinking, when she say, *“Hein, Éliane?”* [00:07:38] I just have one thing to answer: *“Yes, mama.”* No discussion – and that was a real pressure. And when I was with my cousins, with my uncles, I was well, just – *copains* [playmates] – it was completely another life, by chance [luckily]. (Marshall 2015c: 00:07:00)

Having set up the scene of her mother’s control and compared her playful existence in the countryside with her relatives and friends with the strictures of

life at home in Paris, Radigue then moves to the site of the maternal attack. The context is the love that the young Radigue has for Mme Roger, and the jealousy (as she believes it to be) that this has aroused in her mother, Mme Radigue. It is possible that the story of the loss of the lessons might have a more complicated background, involving, perhaps, financial constraints on the family. If so, this is an undercurrent that a young child might well be sheltered from.¹¹ Even if this is the case, and Radigue *has* made an “imaginative error” of the type that Portelli (1991: ix) writes of, the important thing is that she believes the story.

This story was – and is – shocking and its cruelty resounds down the decades. Radigue loved her music lessons and her teacher. They represented, she says, the best part in her young life. Mme Radigue knew this, yet she ended them abruptly and peremptorily in an act of maternal omnipotence. This story comes very close to the start of our first meeting, in what was a lengthy interview. Clearly, it was a story that was important for Radigue to tell me. As I write in Chapter Two, I identify this “*Hein, Éliane?*” as a key moment. In its duration of only two seconds, is a story of destruction and reparation. This story, carried by Radigue for nearly eighty years, is expressed multiply: her body stiffens as she speaks, and her voice channels the severity of the story. (This was evident at the time of the interview and a visualisation of the sonic wave for the “*Hein, Éliane?*” shows a marked dynamism in the sound recording.)

It is also a story of two mothers: the real one and the fantasised one, the ‘bad’ Mme Radigue and the ‘good’ Mme Roger. It is this dichotomy, redolent of the psychic splitting identified by Melanie Klein (1987) as a strategy to ward off anxiety, that gives Radigue’s story such an archaic quality. The “*Hein, Éliane?*” encapsulates in its agonistic dualism both damage and repair: the force of the “*hein?*” is vanquished by the rescue by Mme Roger is waiting in the near future, which, in the case of our interview encounter, lies in the following sentences. To link to the psychoanalysis of Klein and Winnicott respectively, one might say that Mme Roger is the good object that protects the self from annihilation by the bad object (Mme Radigue), that the music teacher has assumed the position of the good-enough mother, the good object who repairs the actions of the bad object, in this case, the jealous and punitive

¹¹ I raised this possibility earlier in the Intermezzo.

mother.¹² Radigue narrates in the present tense making this relationship of damage and repair continuously agonistic: the two affects wrestle in constant motion – one on top first and then the next one ascendant. Radigue has given me what I have isolated as a sonic artefact, but she has also made for herself a transformational object or space in which she can – and needs to – articulate (and rearticulate) her memory of this early scene.

I restate this story because it illustrates what can be created when two people are brought into contact with the other's narrative, memory and sound. The concept of transformational objects or space comes from the psychology of Christopher Bollas, an analyst deeply influenced by the process-orientated Kleinian transmission of psychoanalysis. For Bollas (1978), the transformational space is a place of shifting process, a place that opens the possibility of the containing space necessary for clinical work. Above all, it is a space that offers the possibility of repair and I speculate that this is one of the unconscious motivations behind Radigue's presentation of her "*hein?*" account.

The "*hein?*" is a sonic moment, an artefact in history – Radigue speaks it and we hear the word that falls into the third space of the interview between her and myself. What does it do in that space? Its sound becomes one capable of enhanced meaning that can be heard not simply on a horizontal, chronological axis, but on a vertical axis that invites a deep listening that vibrates with the dissonances and harmonies that sound so structured invites. I position the sonic artefact in this third term, a space or an object between the communications of two people which can hold multiple meanings simultaneously and offer the possibly for transformation. It is not an emptiness, but a place that, like Rovelli's description of the electromagnetic field, is charged with communication, with emotion, with the residues of each person's histories brought into the present. I propose the sonic artefact as a place of attentiveness, of an extended Deep

¹² That there is a certain archaic trait to the tale – reminiscent of fairy stories which involve an evil step-mother as a narrative device – feeds into the deeper theorisation of the Kleinian good/bad object or to the Winnicottian good-enough as a form of psychic narrative and development. Because the mother-child relationship is universal, the shock to its hearer is similarly universal.

Listening, whether this is to the presence of sound or of no-sound, and of performativity.

The sonic artefact's appearance is through the narrative-driven encounter between two people – in this case, the researcher and the narrator coming together in an interview. In Chapter Four, I raised the question of how anecdotes can erupt unexpectedly, forcibly and unbidden, within a narration, a process that Michelle Mouton and Helena Pohlant-McCormick designate as “*boundary crossings or ruptures in the narrative*” (their italics), which

reveal oral history's potential to unmask something beyond the immediate, ordinary, conventional explanation of events, something more raw and vital, unruly, and disruptive of the usual narrative. (Mouton and Pohlant-McCormick 1999: 41-42)

The sonic artefact shares a passing similarity to such boundary crossing, for it shares its origin in a rupturing process that creates Cixous's (1976) *écriture féminine*, as discussed in Chapter Four. And like boundary crossing, the sonic artefact's circumstances of coming into being is the narrative-driven encounter between two. However, oral history – in which boundary crossing resides – is driven by narrative material, and the sonic artefact by sonority itself. I spoke earlier of the rupture of the sonic identity, of a person being so disarranged by sound of their own making: the artefact is the process that triggers this disrupting *jouissance*, creating an *écriture féminine vocalisant* that disturbs the strata of history, time and meaning and so to emerge into the sonorous.

Is there always a sonic artefact?

As I have explained, the sonic artefact was formulated as a product of my interview with Radigue. This interview was the second in the chain of five that I have conducted for this research. What of the sonic artefact in my first research interview, this one made with Ellen Fullman? Or the other interviews conducted after that of Radigue?

Identifying the sonic artefact is more than an editorial process of selection. Each interview I conducted has contained sections in which interesting stories and ideas were given to me. This alone does not make these anecdotes sonic

artefacts. The sonic artefact is present where it is very quickly apparent that a narrator's statement has a historical and emotional depth that the spoken language (the sound of language) is not equipped to express, while the sound of sound is able to do this. In relation to Fullman, I can identify a segment of conversation – off-tape, and so her words are not repeated verbatim here – that fulfils the conditions for the artefact. There are, however, on-tape instances that I would relate to a sonic artefact in this interview: these relate to Fullman's careful crediting of her mentors, teachers and various helpers.

A propinquity to aspects of a narrative – especially in terms of language, culture and idiolect – can obscure the hearing of this sonic artefact. That the Radigue interview is the only one that I conduct with a non-native English speaker has a bearing on my hearing of the sonority of her speech. During the interview itself, there was an amount of French spoken. It is a language which I hear imperfectly, so I was alert to the sound of her language. In comparison, the interview which was closest to my cultural and linguistic idiolect was with Annea Lockwood, who, as a former Commonwealth citizen, has had an upbringing and frame of reference that reflects something of my personal and familial experience. I mention this to stress that proximity to a person or their milieu potentially alters how one 'hears' them and that, therefore, a self-criticality is essential as a navigational tool to identify the nuances at play. The sonic artefact is heard best where the language is strangest.

Hearing the sonic artefact

Nancy asks to consider what hidden communications lie in – resound – in sonority. What secrets are to be gleaned in the deep sound of communication rather than its words? What if we listen to the sonic medium rather than the semantic message? Nancy hears resoundings, and a fissile space that separates “perceived meaning (*sens sense*) and “perceiving sense (*sens sensible*)” (Nancy 2007: 5-6); Lecourt hears triangulating intervals that perform and map a sounding/psychic echolocation. To borrow a phrase from Bruno Latour's actor-network theory, we might hear the “traces of association” in this mapping.

(Latour 2005: 5) All these approaches are important, for the sonic is, as Angus Carlyle and Cathy Lane write, a “new way to understand or describe a situation or interaction”. (Carlyle and Lane 2013: 11) The application of Pauline Oliveros’s listening practice offers its practitioners an acute awareness of these processes, and an understanding of what Salomé Voegelin theorises as a “sonic sensibility” that affords a glimpse of the what lies beneath the domination of the visual field. (Voegelin 2014: 3)

The agility of the sonic artefact invites interdisciplinary approaches. One is provided by the ethnomusicologist and linguist Steven Feld’s joining of the acoustic and the epistemological into what he terms “acoustemology”. (Feld 1996) During an interview with the social anthropologist Donald Brenneis, Feld tells his interlocutor about an epiphany he had experienced during fieldwork that he had conducted in the rich acoustic environment of the rainforest of Papua New Guinea (PNG). “And when you hear the way birds overlap in the forest and you hear the way voices overlap in the forest, *all of a sudden you can grasp something at a sensuous level that is considerably more abstract and difficult to convey in a written ethnography,*” Feld says. (Feld and Brenneis 2004: 465. My italics) Feld and Brenneis’s interview takes place within the ambit of anthropological and ethnographical studies, but it does so very much in the awareness that sound, in all its multiple theorisations in disparate fields (the two provide brief citations to some of these fields, including those within social theory, literary and cultural studies, performance and folkloric studies), offers something to say about a person’s “sonic way of knowing and being in the world”. (Ibid., 462) This sense of a sonically-based placement within the world Feld calls an acoustemology – “the local conditions of acoustic sensation, knowledge, and imagination embodied in the culturally particular sense of place resounding in [in this case, among the Kaluli people of PNG’s] Bosavi”. (Feld 1996: 91)

The sonic artefact and listening

What kind of listening do we need to employ to hear the sonic artefact? Does it even make a sound that registers upon the spectrum of typical auditory

processes? I suggest that the sonic artefact can only be heard via an expanded listening which is the opposite of the acousmatic, reduced listening that Pierre Schaeffer presents as a way of apprehending his sound object. Expanded listening is considered as a listening that homes in on sound (pitch, grain, timbre, etc.) itself: it is not a listening that concerns itself with the sound sources themselves or the wider meaning of the sounds.

By sound object, Schaeffer means sound taken as *itself* emanating from any source. (Schaeffer 1966: 16; 2017: 8) The emphasis on *sound* as opposed to the *thing* that creates the sound decouples the instrument (which is not necessarily a conventional one) from a defined sonic range and creates the possibility of a plurality of sonic registers.¹³ One might also say that the sound, thus detached from its source, then becomes a *signifier* rather than the sound of the signified, a move that again opens the possibility for a new sonic ontology. There is one similarity between sound object and sonic artefact, however, and this has to do with the positioning of the listener's attentiveness. For Schaeffer, this attentiveness is the result of a sensory reduction. In his simile of Pythagoras's *akousmatikoi* (the students who listen to their master addressing them from the other side of a curtain), the acousmatic curtain, which separates the sound source from the receiving ear, is fundamental.¹⁴ Schaeffer invokes Husserl's conception of the *epoché* as the way to isolate the sound object. In Husserl's phenomenological project, it is necessary to distinguish between the natural attitude of quotidian existence and a studied condition of awareness. The move from the one to the other is achieved by a process of suspension – what Husserl refers to as the *epoché*, or the process of bracketing. With the activation of the *epoché*, a detachment from the natural attitude is effected and from this follows the start of all perceptual inquiries. Placing Husserl's *epoché* within Schaeffer's four modes of listening, we see that it moves us away from Comprehending and

¹³ See, for example, Radigue's account of ear-training in the Studio d'Essai where, under Schaeffer's instruction, she and her colleagues would strike porcelain lampshades to hear and categorise the grain of the sound. ("*Maintenant travailler votre abat-jour!*": Marshall 2015c, Vol. 2: 00:55:00) Schaeffer's studio experiments in the classification of sonic qualities (grain, attack, delay, dynamic planes, etc.) predated his theory of the sound object. (Schaeffer 2012)

¹⁴ Ακουσματικοί ("listeners"). In the Pythagorean school, knowledge was bound up with ecstatic revelation, gained either by listening (and ritual) or, for the mathematikoi (μαθηματικοί, "learners"), through rational method. (Russell 1975: 52)

Listening (Schaeffer's two objective modes of listening) and towards Perceiving and Hearing (his two subjective modes of listening). The *epoché* is what creates the space in which the acousmatic reduction is heard. As Brian Kane writes:

By shifting attention away from the physical cause of my auditory perception toward the *content* of this perception, the goal is to become aware precisely what it is in my perception that is given with certainty, or 'adequately'. After the reduction, only the acousmatic field remains.¹⁵ (Kane 2014: 24)

Kane goes on to describe the two-fold effect of the acousmatic reduction: "First, the objectivity of sound is grasped as a phenomenon, and second, attention is redirected to the particular essential characteristic of a given sound". (Ibid: 25) In other words, the reduction addresses itself to the field of listening alone. With this emphasis, Schaeffer shows himself to be more attuned to the listening ear – where it is located, what is offered to its physiological capacities – than the listening subject.

Reduced listening and Deep Listening serve different objectives. The first is concerned with narrow analysis of the sound at hand; the second is concerned with a wider interrogation of the sonic which can encompass social relations and – via the sonic artefact – historic events. An extended application of Oliveros's Deep Listening calls for the listening subject to be consciously involved and activating a widening practice of engagement, a process which starts with listening and then flows outwards in its ramifications. The depth that Oliveros asks for – she spoke often of listening to everything in every way – also invites a historical listening, an emotional listening, a listening to what is said and not said. Oliveros's listening practice is thus also non-judgemental, for it does not privilege one type (or stratum) of sound above another. Indeed, Oliveros's *Sonic Meditation XIII (Energy Changes)* is built on this refusal to raise one sonic layer over another. This meditation begins with this instruction: "Listen to the environment as a drone." In other words, Oliveros is suggesting a de facto process of bracketing, with the *epoché* turning the resulting sounds into an

¹⁵ Kane's use of "adequately" is footnoted in his text as being taken from Heidegger's *Being and Time*, thus marking the phenomenological nature of his discussion.

acousmatic phenomenon.¹⁶ In compositional terms, *Sonic Meditation XIII*'s structure is built around the radical relinquishment of control involved in letting sound be itself alone, rather than harnessing it for a 'composed', musicological formulation. (The sonic knowledge gained from, on the one hand, composed – or, to reference once again Varèse, organised sound – and (de-)composed sound will be different.) To return to Rovelli's electromagnetic field, the sonic artefact is a delineated space that is teeming with meaning and communication.

The sonic artefact and theories of space

We have spoken of boundaries and spaces in relation to many things: the interview, to narrative framing, to sound itself. But a topological set – the interview, the narrative, sound – has no structure which enables it to be analysed without one being imposed upon it. As we saw earlier, Lefebvre (1991) identifies this issue clearly. If a space (or the elements within it) is to be analysed, then some type of structuring mode is a necessity. Only with the structure that a theory of space (which is topology) provides is it possible to articulate and map the landmarks (or points) and their social tensions between one another, relationships and the neighbourhoods. Whatever the nature of a single point – a note, a phrase, or in psychoanalysis, a symptom – each one generates a history, and this history is only audible to a structured listening. As Burgoyne says:

When you speak of a space, then, *sotto voce*, you speak of the points of the space. In a political space, the points may be political actors. In a social space, they may be individuals linked to others through the social bond. The space then gives a representation of social relations of various kinds. In psychoanalysis, the points are phrases or fragments of phrases and the space here is a vehicle for desire and dissatisfaction. In all of these spaces, the structure of the space tells the history of the passions experiences by the actors involved. (Burgoyne 2011: n. p.)

¹⁶ There is a holistic aspect to *Sonic Meditation XIII* in that Oliveros asks in her score that her practitioners/participants take note of their own internal sounds ("blood pressure, heart beat and nervous system") as each person evens out the sounds from multiple sources. This process is also a way of placing a listener within a larger, resounding world, in which they are aware of themselves as a sound source. Cf. with Cage's story of the anechoic chamber in Chapter Three.

A psychic topology is created by the interview encounter. It is a third term or space that exists between the dyad of researcher and narrator. A set of utterances, that is, the speech contained in the encounter, has no structure by itself: it is simply a set of words. The imposition of any given topology creates the circumstances in which scrutiny can begin. This topology could be linguistic, psychoanalytic, or otherwise: it is, primarily a methodology applied to a space of discourse. The relational space of this third term, the space in which the sonic artefact operates, can thus be viewed as a place that exists *between* two registers, the Symbolic (in which ‘men’, that is, those threatened by Lack)¹⁷ are trapped by the phallogentric order of language – and the Imaginary, the order of mental functioning that is unable to process the world and the self beyond a set of dualisms. Deep Listening, in this psychoanalytic topological formulation, lies in the centre of this scheme. It is a relational space of intimacy, to which the *écriture féminine* has access to.¹⁸

This is where the sonic artefact can be triggered by certain moments of densely structured interpersonal communications which rupture a more measured communication. I formulate my conception of the sonic artefact as a space into which methodological tools can be imported to excavate meaning from the rich relational communications field that constitutes this dynamic and transformational area. Moving on from Portelli’s subjective formulation of the “inter/view” (Portelli 1991: 31) in which the protagonists disclose themselves to one another, and from Kleinian psychoanalysis’s theorisation of transitional or transformational space (Winnicott 1992 [1951]; Bollas, 1978), the sonic artefact will be theorised as the locus of an extended Deep Listening practice, in which a heterochronic listening takes place. A line of thinking drawn from mathematical topological methodology helps to construe and define this space, its properties and the mutations and the relationships within it. The nature of the listening that renders the sonic artefact audible is thus distinguished from Schaeffer’s sound object and practice of reduced listening (1966, 2017) and of Husserl’s phenomenological *epoché* (Schaeffer 2017: 208). The concept of the sonic

¹⁷ Men are not, for Cixous, a biological category so much as a category threatened by Lack.

¹⁸ Women, in Cixous’s theory, have access to both the Symbolic (a pre-rupture location) and the middle, relational layer.

artefact is offered as a new tool for the theorising of space and communications in an interpersonal field and it constitutes one of my contributions to knowledge.

Psychoanalysis and the sonic artefact

In earlier chapters in relation to transference processes activated by any oral history practice, I raised a question: who is listening? The question is a natural corollary to an earlier one articulated by Paula Heimann (1989b [1955/56]), repeated by Christopher Bollas (1978), and rephrased by Alessandro Portelli (1998): who is speaking? A close attention to the currents of transference and counter-transference in an interview encounter is enough to begin to explore the multiplicity of voices with which we speak. The next question must surely be the one implicit in Heimann's original one. A listening practice, as with speaking, can be enriched by what we might term transference listening.

Speech and its absence are at the heart of psychoanalysis. It is through speech, and the uncovering (eruption) of unconscious material via the practice of free associative speaking, that change is affected. A symptom is uncovered and worked through via the talking and the interventions of the analyst. The relationship between language and its meaningful scrambling by the unconscious is the theme that unites Sigmund Freud's three separate works on dreams, jokes and sex. Following Freud's (1991 [1905]) essay on the operation of jokes and their relation to the unconscious, Theodor Reik (1936) has written about the importance of surprise as a tool in psychoanalytic discourse, theorising that surprise offers a way for the repressed material to erupt. All three things are linked by how language erupts and disorders. This thesis research is similarly based on the practice of speaking and (methodologically inflected) listening and it is via speech – *qua* sound – that the sonic artefact is triggered.

In *A Voice and Nothing More*, the philosopher Mladen Dolar subjects the sonority of the voice to a series of methodological interrogations. He cites a section of a dream (Dolar 2006: 142-3) that Freud himself reports in his dream book – *The Interpretation of Dreams* (1976 [1900a]). During his recalling of a long dream that seemed to involve a sea voyage, Freud writes, “[I]t appeared that

the next stopping place was called ‘Hearsing’... ‘Hearsing’ was a compound. One part of it was derived from the names of places on the suburban railway near Vienna, which so often end in ‘ing’.... The other part was derived from the English word, ‘hearsay’” (Freud 1976 [1900a], cited by Dolar 2006: 142-3). Dolar’s analysis of Freud’s compound word, “hearsing”, is lyrical:

The element of singing in saying, that which does not contribute to signification, is the stuff that enables the flash of the appearance of the unconscious. Analysis is based on hearsay – what else does the analyst do but hear people say? – but the point is that inside the hearsay one should lend an ear to hearsing, *to give hearsing a hearing*. (Dolar 2006: 143, his italics)

Freud’s sonic scramble – his elision of *hearsing* and *hearsay* – provides a sounding of an *écriture féminine*. If Cixous’s theory of reinscription, of rewriting the self, could be thought of as a *her-sing*, it is, perhaps, a poetic step to a her-noise: not so much the overt manifestation of the Her Noise exhibition which inspired the beginnings of this research, but, rather, the *écriture féminine vocalisant* and the soundings of a voice breaking free of its fetters.

The sonic artefact in the feminist interview

The sonic artefact makes possible the space necessary for an *écriture féminine vocalisant* to be sounded. An interview is a way of creating a narrative about one’s past, a way of creating knowledge within defined parameters. A feminist interview is one that recognises and accounts for the flow of power that surges through cultural and social institutions. It is also an interview that also recognises the power differential that exists between researcher (the controller of the end narrative) and the narrators themselves. This recognition, so charged with ethical responsibility, must be maintained at all times. It provides a way of approaching the encounter that speaks to Portelli’s “inter/view”, the “mutual sighting” which is a precondition for two people to interact in a meaningful way. (Portelli 1991: 31) Portelli writes:

The two interacting subjects cannot act together unless some kind of mutuality is established. The field researcher, therefore, has an

objective stake in equality, as a condition for a less distorted communication and a less biased collection of data. (Ibid.)

The “some kind of mutuality” that Portelli refers to is not explicitly theorised from a feminist orientation. Nevertheless, its implicit recognition of the power dynamics operating in any socially-constituted interaction (such as an interview) means that the encounter must yield to a multiplicity of discourses, of which feminist discursiveness is one. “Some kind of mutuality” is not so vague a phrase as it seems at first glance, for its width allows the admission of a breadth of interpretations.

How might the sonic artefact interact here? The interview is a conscious articulation of perceived facts; any associated affects are more deeply rooted in the narrator’s emotional processing of these facts. The sonic artefact resides in the *space* of the feminist-inflected encounter because it is accessed by deep listening and one of the many aspects of deep listening that I advance is the listening to the social and cultural means of compositional production. The feminist-inspired interrogation of material, concrete and systemic power dynamics that is fundamental to historical and sociological enquiry is mirrored in the sonority of the sonic artefact in its sonorous semiotics: here, in this system of referral, we speak once more to Nancy’s *renvoi*, that chain of referencing, resonating feedback. If a feminist interview acknowledges and analyses the symbolic order that is incarnate in social systems, then the application of the sonic artefact in the sonority of the interview works on the immaterial register: it hears the distant echoes that ripple outwards from the words spoken by a narrator of their own history, and in its subversion of this symbolic law of the father, creates the possibility of an *écriture féminine vocalisante*.

Using the sonic artefact

A moment, an in-between space, a place, an artefact. I currently use these words interchangeably, conscious of the slippage between them. Just as sound is a medium of relations, which generates “a sense of place” and temporary connections” and allows for a “listening subjectivity that hear the actual, the possible, and even the impossible participating in the ephemerality of the unseen” (Voegelin 2014: 3),

capturing the actions of the sonic artefact can be difficult. As sound theorist Brandon LaBelle writes:

Sound is intrinsically and unignorably relational: it emanates, propagates, communicates, vibrates, and agitates: it leaves a body and enters others; it binds and unhinges, harmonizes and traumatizes; it sends the body moving, the mind dreaming, the air oscillating. It seemingly eludes definition, while having profound effect. (LaBelle 2016: xi)

To export my interview with Radigue to the field of sound art, one may view the recording as a sonic artefact that has been authored by the participants of the interview and that now stands on its own. This artefact is a third term, a repository for transferential process as well as a thing in and of itself that can be analysed within the methodological realm of sound art. As Carlyle and Lane note, “reflexive listening... exceeds... boundaries” (2013:11). The listeners can themselves create meaning. Taking my lead from Voegelin’s (2010: 5) analysis of the ‘thingness’ of sound, I propose a new way to consider the interview as a sonic artefact, all that is silent and sounded, intentionally and unintentionally, within a new methodology that goes beyond verbal language.

A space to be structured

The sonic artefact (in Radigue’s case) sounds and the moment of its sounding creates a new space – an intangible, unbounded territory in need of structuring – in which material can be placed for interpretation. I acknowledge, too, that what constitutes a sonic artefact is subjective. I choose the “*hein*” as my prime example in my interview with Radigue, for it seems to me that several factors – language, performance, narrative – coalesce around it. However, it is possible that other listeners to this, or any other interview, could choose their own, different examples. That is not a problem. Each person’s “hearsing” – what Dolar so correctly sees as the “flash... of the unconscious” (Dolar 2017: 143) – is also their own her-sing, their own glimpse into an *écriture féminine vocalisant*. The sonic artefact nevertheless asks its participants to select an area to scrutinise it for deeper meaning.

The sonic artefact as object

Such a tool could express the sonic artefact in quite a different mode. For example, Ellen Fullman speaks of her music as a remnant of a journey. The music she creates is on the Long String Instrument, a piece of music-making technology that she has invented and continued to modify over the past thirty years. The Long String Instrument is, in this sense, a work-in-progress, a creation subject to a continual working over. Consisting of up to 120 strings stretched horizontally at waist-height and played longitudinally (that is, the player walks up and down the length of the strings), each piece played on the instrument represents a journey in terms of the amount of physical distance covered. On another level, the journey is accomplished within Fullman's invention of a new space that is expressed within the terms of the Long String Instrument's set-up and operation. If we were to impose a structuring inquiry around gender and performativity on the topology of the instrument, then the Long String Instrument's operation could be read as a subversion of the gendered space in that it opens something new, a continuum. Prior to this, women surrounded by space but without the full freedom of movement. Fullman has created a carefully delineated space in which she is free to compose and perform.

The sonic artefact as disorder

The sonic artefact might also be theorised as a moment in which the speaker betrays themselves when an ordered performance falls apart. A sonic artefact from the interview with Joan La Barbara could consist of a held and sustained silence that follows her distressing narration of a miscarriage, an event for which she was blamed by one doctor. Such a sustained silence might not happen if the speaker neither surprises themselves nor is surprised by the interviewer. In the case of Annea Lockwood, I would like to think of the sonic artefact as expressed within the narration of two voyages across oceans – from New Zealand to the UK and then, years later, from the UK to the US – in which a volume of water equates to volumes of sound, tangentiality, and the entwined possibilities of composition and (de-)composition.

The conceptualisation of the sonic artefact has several significant intersections with existing theories pertaining to psychoanalysis, performance and sound art. However, I offer the theorisation of the sonic artefact as a new tool, a “real entity” to quote Rovelli on the electromagnetic field, that will facilitate the creation of new, and deeper, meaning within the data generated by the interview, and, by extension, the encounter. Thus, the meaning offered by the sonic artefact is reached by a process of *expanded listening*. This, I conceptualise as a deep listening that uses methodological foci to hear greater meaning. This differentiates it fundamentally from Schaeffer’s sound object, which is reached by the process of *reduced* listening and which is theorised as something that refers onto itself. (Chion 2009)

If the sonic artefact can be understood as a discrete trigger that influences the production of meaning, it follows that one area of its operation should also focus on the search for meaning, the production of meaning, the ontology of meaning. It asks us to consider how meaning is forged between people, between things, within sound. It creates a new relationship with the listener, who changes from being an eavesdropper to a person who can themselves create new meaning with the sound object at hand. Fullman, a composer who brings her initial training in fine art practice to her description of her music as sculpture (she speaks of it as a process of “sculpting in air”), highlights the importance of space in doing so. And if the medium of space is invoked, then so, too, are the ways in which public and private space are circumscribed. Thus, the sonic artefact becomes also, in Lane’s terms, an installation of language, to be analysed with regard to the “different dimensions of language: its communicative potential, its paths through the body, its acoustic, gesticulatory, spatial and mental characteristics”. (Lane 2008: 161) Lane speaks of “how language occupies and creates public and private spaces, and how meaning is produced between people”, of how speech and sound are rendered “as sculptural material to explore the complex relationships between body, voice, sound and subject”, and in so doing “questioning the roles and powers of language”. (Ibid)

My initial thoughts about the sonic artefact came out of thinking about the nature of the encounter between any two people. In the case of my research, these encounters take place in the interview setting. Portelli puts the reciprocal give-

and-take of the interview at the very centre of the process through his conception of the encounter as a “mutual sighting: it is an exchange between *two* [his italics] subjects”, an “experiment in equality”. (Portelli 1991: 31). For Portelli, “some kind of mutuality” is a *sine qua non* to an exchange taking place. This mutuality underlines the dynamic nature of the to-and-fro of two people conversing and it is a dynamic which is central to his vision of oral history. He conveys the open-endedness of oral history – a history characterised by its “unfinishedness” – by describing it as “an inexhaustible work in progress”

floating in time as it does between the present and an ever-changing past, oscillating in the dialogue between the narrator and the interviewer, and melting and coalescing in the no-man’s land from orality to writing and back. (Portelli 1991: vii)

Portelli’s vision of this mutable and unfinished “work in progress” is a valuable one for it accentuates the continual dynamic of process and the dialectic of meaning. This unfinishedness is also central to the Freudian concept of overdetermination, in which the process of free associating speech is exactly that – free and potentially limitless in the endless chain of signification. The expanded listening that generates the sonic artefact opens this infinity of meaning as a freedom, while a Deep Listening practice will focus lines of interrogation. This inherent, shimmering instability within the “work in progress” of oral history should be read as a rich source of enquiry, as I shall explain in the next section.

A shimmer between sound and meaning: a sonic paradox

Nevertheless, this shimmer of instability means that there exists a paradox at the heart of the sonic artefact. Because the sonic artefact’s meanings, resounding in an infinite chain of signification, are theoretically endless, the artefact cannot be concluded. It cannot be wrapped up neatly. The play of overdetermination equates to an infinity of meaning. For Julia Kristeva (1984: 91), as we saw in Chapter Two, this dynamism is expressed in a linguistically/psychoanalytically-derived formulation of signifying practices. Kristeva points out that the “I” – of the person who speaks, the person who listens – cannot be assumed to occupy a fixed position. In Kristeva’s formulation, there is an oscillation – a shimmer –

between what the “I” is at any single point. I suggested in Chapter Two that we listen to the fractured discourse that signals the “mobile discontinuity” of which Kristeva (op. cit: 104) writes. It is here that the sonic artefact resides.

What does this mean in the practice of the interview, and how might this daunting endlessness of sound be usefully scrutinised by methodology? It may be that we should ask, continually, some key questions. What is it that we hear, even in the speechless moments? What shimmers between the sound and its signified meaning? An expanded Deep Listening such as I suggest in this thesis would hear this shimmer. Radigue’s “*hein?*” is more a sounding than a sign that has provided me with a trigger to reconsider the nature of the interview encounter, to hear not only the interview’s semantic meaning but also its dynamic sonority, its reverberations and resoundings.

Concluding remarks

Whatever the sonic artefact is for each researcher (and my edit of sound will not be the same as yours for many reasons, among them, transferential and topological ones), it opens a conduit for generously multiple analyses to be applied to data. In the case of this research, those analyses began with an enquiry on how female experimental composers reshaped music and the systemic structure of the areas of operation in (what I loosely call) the music industry so that they might compose in new, radical ways, to break frameworks to achieve an *écriture féminine musicale*. Hearing this movement, in addition to listening to the *sound* of the interview (its verbal and sonic meaning) and developing ways of theorising it constitutes a practice that strives towards a deeper listening.

Chapter Six: “Call them composers!”

The only way to beat the authorities is to become one.

Pauline Oliveros (1976: n. p.)

We are social beings by the voice and through the voice; it seems that the voice stands at the axis of our social bonds, and that voices are the very texture of the social, as well as the intimate kernel of subjectivity.

Mladen Dolar (2006:14)

Music is more than an object of study: it is a way of perceiving the world. A tool of understanding.

Jacques Attali (1985: 4)

For *Still Listening*, the international celebration organised for what would have been Pauline Oliveros’s eighty-fifth birthday in 2017, the art historian Mary Anne Staniszewski (2017) contributed what she describes as a “manifesto/poem/portrait” entitled *Call Them Composers!* Created from cutting-up the text of “And Don’t Call Them ‘Lady’ Composers”, Oliveros’s 1970 article for the *New York Times* (Oliveros 2015a: 47-51), Staniszewski reorders Oliveros’s own words into an amplification of the composer’s original claim: “*There [have] been... ‘great’ women composers!! No mystery...*”. And yet, with all the ellipses peppered through – and thus fragmenting – Staniszewski’s multiply-defined cut-up text, there is no joined-up narrative. This contributes to a sense that the battle for gender equality that Oliveros enjoined, way back in 1970, is not yet won.

This thesis has considered the precariousness of women’s work, the reasons for this precariousness, and how it is necessary for scholars from diverse fields to be alert to the reasons that undermine women’s work and, consequently, its correct valuation. I argue that this precariousness may be ameliorated – in the generic sense – through the utilisation of a strategy that expands the practice of Oliveros’s Deep Listening into the economic, social and historic territories in which they are located. In a specific sense, I offer the tool of the sonic artefact as means of accessing a topology of space that privileges sound as a

communicative medium, thereby highlighting both the elective affinities (Burgoyne 2011) that join data in a network of relationships and of lesser proximal relations. This concluding chapter looks to ways that women's compositional energy (and, indeed, all the products of a feminine writing) can be properly documented, thus securing that their work is positioned within a fuller historiography and musicological canon. In addition, and beyond the realm of music, the sonic artefact is offered as a way in which all researchers can use listening to further their depth of understanding.

A modal existence: from the *Postcard Theater* to the *Irish Avant-Garde*

In the *Historical Documents of the Irish Avant-Garde* project (2015), the composer Jennifer Walshe (b. 1974, Dublin) and her collaborators imagine the work and practice of a wide range of Irish experimental musicians and sound artists. These artists come from many regions of, and sectors in, the post-independence Irish state. Some are female (one of them is a nun in an enclosed religious order that embraces silence as a monastic rule); some are outsider artists, making cassette-tape recordings of found sounds and then burying them in the rural fastness; some are manual workers at the vast Guinness Brewery complex in Dublin. The *Historical Documents* contain biographies of Sister Anselme O'Ceallaigh, who composed drone works decades before La Monte Young, with Marian Zazeela and John Cale, began the durational projects of the Theatre of Eternal Music in mid-1960s New York; of Róisín Madigan O'Reilly, who translated Karl Schwitters's *Ursonate* into Irish Gaelic; of the Guinness Dadaists, whose formulation of an Irish Dadaism was created independently, and without knowledge, of the continental anti-establishment art movement that grew up in the years during and after the First World War. In its full configuration, the *Historical Documents* publishes everything necessary to create an archive (the letters, press clippings, compositions and select biographies) and a sonic presence (selections of the compositions are available online) to render a critical reading for a scholarly article on the history of radical composition in

Ireland. And the book would be, had any of these characters existed, a primary source of information on Ireland's compositional history.

Would is the key – modal – verb to hear in that last sentence. None of the artists in the *Historical Documents* have ever existed beyond the *magna opera* of Walshe and her co-creators. Rather, the *Irish Avant-Garde* offers us a bundle of simultaneous realities: it is a series of musical imaginings; it is a revisionist history, created in a humour that honours the spirit of the Irish author Brian O’Nolan (who wrote as both Flann O’Brien and Myles na gCopaleen), in which Dada and drone music spring first from Irish roots; it is a documentary spoof (as opposed to a spoof documentary), a series of fictions and sleight of hands that imagines a parallel history for Ireland, a parallel history that listens – to revisit the words of historian Lucien Febvre (1932: 576) – to its voices from below. Or it *would* listen had those voices – lost not only to history but lost, too, to the possibility of history – ever been able to imagine the possibility of creativity.

The *Irish Avant-Garde* is a powerful project and I cite it deliberately not to bring a new composer into this research so much as underline that the fundamental issue with which my project began has not yet been resolved. My research was instigated several years ago by a conversation I had with Annea Lockwood, in which she spoke of her need to leave one country (the UK), where it had become impossible for her to work, for another (the US), where a working culture more conducive to collaboration existed. Walshe, unborn at the time of Lockwood’s leaving, and unborn at the time – 1970 and 1971 – that Pauline Oliveros (2015a) and Linda Nochlin (2015a) – wrote their polemics on the unheard and unseen, makes work that emphasises the continuing and contemporary relevance of these 1970s texts. Walshe recognises an eternal truth: that those who exist on the margins are, *ipso facto*, undocumented. This is to say, that they are excluded, as a matter of course, from positions in which they can sound and resound meaningfully. They will never occupy a position in which they will be listened to or looked at. If music is, as Jacques Attali argues, a way of “perceiving the world” (Attali 1985: 4), then understanding the absence of music – an unstated theme of the *Irish Avant-Garde* – is a way of beginning to understand the many pre-conditions upon which the making of all art hinges.

Walshe’s what-if project heaves a sigh of “if only”. There is a direct line in her puissant imaginings of an alternative Ireland that links back to the pointed mischief of the *Postcard Theater* of Oliveros and Alison Knowles (1974), which I mention in Chapter One, or even to Virginia Woolf’s 1929 fictional Judith Shakespeare, talented sister to William.¹ (Woolf 2014: 44-46) These three projects recognise that fictional, illegitimate history might be used as a strategic device to illuminate and to scrutinise the gaps that exists in an otherwise legitimate history. Theirs is a carnivalesque upturning of the musicological canon and it calls to mind once more Nochlin’s rhetorical flourish of the four geniuses: Cézanne and Gauguin, who pursue their artistic “calling” against all proprieties; “mad Van Gogh spinning out sunflowers despite epileptic seizures and near-starvation” and Toulouse-Lautrec, “sacrificing his aristocratic birthright in favour of the squalid surroundings that provided him with inspiration, etc.” All four, teases Nochlin, “[radiate] that mysterious, holy effulgence” that characterises their brilliance and so raises them from the status of mere mortals towards that of genius, alongside a narrative of unsustainable coherence and mythological proportions. (Nochlin 2015a: 50)

Oliveros: playing with Beethoven

As discussed in Chapter One, Oliveros and Knowles used their *Postcard Theater* to poke serious fun at the construction of five composers held as emblematic of (male) genius. Beethoven is one such hero who is feminised by the duo who use a weaponised vocabulary of gendered and racist denigration.² Mozart becomes a “black Irish Washerwoman”; Chopin is domesticated with “dishpan hands”; Bach is – simply (and, perhaps, doubly) – a mother; and Brahms is a “two-penny harlot” (see Chapter One). The images are witty: in the Beethoven card, “composeress Pauline Oliveros poses in her garden” grimly (she is mimicking Beethoven’s expression) reading a book. The split images of baby Knowles and

¹ In *A Room of One’s Own*, Woolf’s Judith commits suicide after becoming pregnant out of wedlock: her body is buried in an ignominious location, “beneath the cross-roads where the omnibuses now stop outside the Elephant and Castle”. (Woolf 2014: 46)

² The postcards of Beethoven and Brahms are reproduced in Chapter One; the Mozart image is reproduced in Chapter Three. The Chopin card (*Chopin Had Dishpan Hands*) shows a photograph of Knowles’ young daughters, Hannah and Jesse Higgins, playing naked in a brook) and Bach card (*Bach Was a Mother*), which shows a close-up photograph of Jesse with a flower, are not reproduced in this thesis.

young Oliveros on the Brahms postcard disrupt the expectation of a femininity predicated upon demure performance.

The *Postcard Theater* was not motivated by any hostility towards its chosen composers. (Gray 2016a) The real Beethoven, the composer of symphonies, was not, either objectively or subjectively, a lesbian, but he *could* have been in an unreal and alternative history. It is this *unwritten* history of women's endeavours, this *non-history* that Oliveros and Knowles are exposing in their postcard multiples: by writing fake history one says something about reality. Oliveros acknowledges this. Many years later, in a paragraph to accompany a slim reprint in booklet form of the postcards, Oliveros was to write:

My first postcard theater in the 70s was a comment on the outsider status of women in the music world. Branding Beethoven as a lesbian was a way of turning the tables on the musical establishment.

I sent the card out to friends and to Alison Knowles. I invited her to join me in making a series of postcards in the themes of attributing epithets usually aimed at women to other composers of the traditional canon. Thus “dishpan hands”, “two-penny harlot”, “was a mother”, etc. This was a time of raising consciousness about women in music. (Oliveros 2013)³

Both artists, in separate ways, were attuned to the lack of female representation in the arts and these cards were a way of feminising, of queering, compositional space and compositional possibility. In terms of Knowles's work, the postcards provide a link to *Womens Work*, the feminist text-score collaboration that she made with Lockwood (and to which Oliveros contributed) a few years later. For Oliveros, this listening – perhaps a kind of under-listening – was codified into her far-reaching practice of Deep Listening.

Oliveros and Nochlin's texts were written during what Nochlin for her part, describes as “the heady days of the birth of the Women's Liberation movement

³ This booklet edition of the postcards is not factually reliable. Knowles is not credited as a co-author, and the title gives 1976 as the date of the postcards, although it is certain that one card – the Beethoven one, if not others – were in circulation prior to this. Its title also uses a British spelling for the word “theatre”.

in 1970” and share “the political energy and optimism of the period”. (Nochlin 2015b: 311) Both these texts are now approaching their fiftieth birthdays. In 2006, Nochlin returned to her original essay to see what had changed in the intervening thirty years. She saw signs of progress:

Today, I believe it is safe to say that most members of the art world are far less ready to worry about what is great and what is not, nor do they assert as often the necessary connection of important art with virility or the phallus. No longer is it the case that the boys are the important artists, the girls positioned as appreciative muses or groupies. There has been a change in what counts – from phallic “greatness” to being innovative, making interesting, provocative work, making an impact, and making one’s voice heard. There is less and less emphasis on the masterpiece, more on the piece. (Op. cit.: 312)

Women as art historians, artists, critics have – “as a community, by working together” (op. cit: 319) – effected this change, Nochlin believes. The critical and political tool of theory – feminism, gender, race and psychoanalysis – has helped bring this about.

And yet. An ideational battle has scored some victories, but a history of gender-skewing does not disappear in a matter of decades. In 2016, the Guerrilla Girls – still the “conscience of the art world” – revisited their 1986 poster, *It’s Even Worse in Europe*, in the form of diversity questionnaires which were distributed to 383 museum and gallery directors and curators.⁴ Even allowing for the inherent problem of data collection by the method of voluntary questionnaire, the results showed an incremental improvement – from 10% to 20% – in the representation of female artists in collections and in shows, but many institutions chose not to respond.

If this state of affairs is a reason why Walshe’s alternative world is so provocative, it must be augmented by issues of contemporary domestic economies. All the composers I interview have had to rely, to some extent on public funding – scholarships and state commissions, for example – or paid

⁴ The questionnaire formed part of the Guerrilla Girls’ exhibition *Is It Even Worse in Europe?* (1 October 2016-5 March 2017) at the Whitechapel Gallery, London.

work. None of them have been able to rely on inherited capital. In some cases, lengthy employment histories have proved beneficial. Lockwood, for example, has had a long career as a tenured professor in the US – a position that brings real economic benefits. That Oliveros left a tenured position in San Diego to branch out alone was a leap of artistic and economic faith. Marriage brought Joan La Barbara and Éliane Radigue some fiduciary stability, but one needs only look to the former's long history as a jobbing musician, trying out all types of music, for an indication of the importance of the financial stability. Radigue was, for a period, supported by her former husband, but this arrangement – an amicable compensation for Radigue's own 'woman's work' as a supporter to Arman's career and mother to their children – is unusual. Fullman, the youngest of the five composers in this research (and, therefore, the artist most exposed to inflated living costs), speaks in the interview of her funding her music through various jobs.

Breaking out, sounding out

This thesis has asked about the nature of the strategic practices that women composers in the post-war period have needed to engage upon to work and be heard. I argue that the composers have all needed to develop a frame-breaking strategy that begins by firstly, defining the nature of the sonic or compositional boundaries that confine them, and, secondly, creating a frame-breaking music – a rupturing – that results in an *écriture féminine musicale/vocalisant*. This rupturing is as subversive as it is subtle. One thinks of the bodies of water featured in Lockwood's river recordings: the rivers create sound even as their scouring actions undermine the banks that hold them; or the sound implicit in Lockwood's destroyed pianos, as each piano – no longer conventionally playable – becomes a meta-instrument, a sonic sculpture that is played upon by the natural processes of the environment. Fullman goes in the opposite direction to Lockwood: her Long String Instrument is a sculpture that has become an instrument and in so doing has exceeded and flowed over whatever boundaries and limitation points that a sculpture normally has. Radigue responded to the sounds of the *concrète* (that is, the real) by slowing her compositional sonics to a level where their constituent parts are dismantled by harmonic filterings and

rebuilt. Barbara has extended the body's sonic capacity in new ways, and Oliveros has found music in places where only sound existed.

Don't call them exceptions

The women that I interview in this research have succeeded despite considerable career hurdles – sexist, economic, historic and systemic – that have been placed in their way. They are exceptions to the rule. And yet by singling them out as exceptions or as pioneers, we run the risk, as Frances Morgan (2017b) points out, of reinforcing their status as oddities, the odd ones out. It is a short step from being an oddity to being odd, of becoming an “honorary” man (Green 1997: 113-114) because an old system can never exist without some construction of gender being part of it.

Often the career hurdles faced by women have not been placed there with any malign intent on behalf of those who represent the status quo. Rather, these hurdles exist, and they are reinforced through a lack of criticality on behalf of those who educate others and those who plan education. It is a long-term problem, and, in music technology and electronic-based music, the problem shows no sign of disappearing. Andra McCartney (2006), Hannah Bosma (2006, 2013), Tara Rodgers (2010, 2015), Georgina Born and Kyle Devine (2016), and Cathy Lane (2016a, 2016b) lead the many scholars who have all pinpointed how the gendering of music technology has the effect of putting off young women from entering the field. Elizabeth Hinkle-Turner (2006: 247) details how Oliveros, for one, tried to short-circuit a female reticence to enter the field by circulating details of Mills College's electronic music programme to feminist listservs.⁵ This situation sits parallel to the gender biases of classical music's performance and historiography, as shown so clearly by Susan McClary (1991, 2000), Marcia Citron (1993), and others. This is an issue that is larger than the interface of music with technology and concerns wider cultural transmission of gender and linked opportunity. Sherry Turkle states as much succinctly: “The

⁵ I see in this another example of Oliveros's ability to use technology to advantage under-informed or marginalised communities.

computer has no inherent gender bias. But the computer culture is not equally neutral.” (Turkle 1986: 41)

Sound, relationality and the sonic artefact

The emphasis here is on sound as a medium of relationality, a medium that vibrates and resonates in a way that exceeds the compositional format alone. In listening to the music of these composers and in listening to the sonority of their words, I have come to develop the tool of the sonic artefact as a way of articulating a new methodological lens that offers the possibility of analysis from heterochronic, multivalent hearing point. Of Maryanne Amacher, Brandon LaBelle writes how her work “shifts [the listener’s] attention from standing waves and the acoustics of airborne sound to that of structural vibration.” (LaBelle 2016: 171) I suggest that the sonic artefact is a way of beginning to apprehend the structural vibration of women’s work, and that an extended Deep Listening is a powerful tool that invites us to hear our position in the world *qua* bodies that are related to other bodies and that exist in a matrix of connectivity. My call for this extended listening recognises Oliveros’s work and rearticulates it in a way that asks us all to re-examine our listening practices.

To apply the sonic artefact to the oral history interview, especially in its sounded iteration, is to begin this process of privileging sound as a communicator of history. When narrators speak into a recording device, they are not simply speaking of history but also, by doing so, demonstrating – in the present – their deeper relationship to what has gone before. Oral history emphasises speech acts, but once expressed within sonic theory – in which the sonic artefact is framed – there begins to examine the archaeological strata that surround that speech. At the beginning of Chapter Two, I quoted Svetlana Alexievich’s description of each one of her war-zone interlocutors as being “surrounded by an invisible world” (Alexievich 2017: xviii), a world of lived experience that is ultimately unknowable to others in its entirety. Alexievich’s practice of oral history suggests that we can see something of this invisible world by talking and listening to people. In her encounters with other people who had also experienced trauma (this time, in the aftermath of the meltdown of the

Chernobyl nuclear reactor in 1986), Alexievich offers a detail of what she is listening for in her interviews:

The truth is that facts alone were not enough; we felt an urge to look behind the facts, to delve into the meaning of what was happening. The effect of the shock. I was searching for these shocked people. *They were speaking in new idioms. Voices sometimes broke through from a parallel world, as though talking in their sleep or raving.* (Alexievich 2016: 16. My italics)

The sonic artefact cannot reveal all that remains unheard, but, through the designation of a topology, rich with the resonances of referring sounds (Nancy's *renvoi*), something of Alexievich's parallel world can be heard and something more can be mapped of a person's experiences of a life expressed as a passage through a time, alongside the people, their networks, and the larger structures that surround them. In this way, the sonic artefact opens up a theoretical space of epistemological creation.

Changing the structure

In the context of drawing parallels between ancient Greece and the contemporary Western world in order to examine the continuing exteriority of women to political power, the classicist Mary Beard makes this central point:

You can't easily fit women into a structure that is already coded as male; *you have to change the structure*. That means thinking about power differently. It means decoupling it from public prestige. It means thinking collaboratively, about the power of followers not just of leaders. It means above all thinking about power as an attribute or even a verb ('to power'), not as a possession: what I have in mind is the ability to be effective, to make a difference in the world, and the right to be taken seriously, together as much as individually. (Beard 2017: 14. My italics)

You have to change the structure. In a sonic formulation, to change the structure would be to change the way that sound flows and ricochets from one surface to another; to change the structure would alter forever the harmonics of the sounds, and their future iterations as the swarm of the attacking note dissipates and pulls

apart. To change the structure would be to irrevocably change how we listen and how we think. This is what Deep Listening asks of us: to hear the *relationality* of sound sounding in space, through bodies and between bodies. In Oliveros's composition, sound is an entity that links listening (in whatever sense) beings. The deployment of the sonic artefact is a strategy for hearing the historical depth of the sounds that link us.

Annea Lockwood has changed the structure: offering us the oceans of subsonic sound, she expands the sonic world, and, thus, our place as listeners, connected in a vast network of sound and referrals, in it. Ellen Fullman has changed the structure: the Long String Instrument is an installation that came out of sculptural ideas of presence and gesture; conceived and developed outside of any musical hierarchy or structure, Fullman's ingenuity, expressed in both sonic and physical form, has rerouted music-making to a place where a performative presence is at the heart of her most sculptural composition. Joan La Barbara has changed the structure: her extended vocalising removes limitations on how one sounds one's musical presence and insists upon new ways of being heard. Éliane Radigue has changed the structure: by slowing sound into its basic materialism, a matter of particles on tape, her composition offers a transcendent sonic materialism that accentuates transmission, listening and community. And Pauline Oliveros has changed the structure: her request that we listen, and listen deeply, is an invitation to hear not only music and sound, but the sounds of ourselves and those of other people in the world: to hear our harmonies and our dissonances. At its most dilatory, Oliveros's Deep Listening is a listening to the soundings of sound in all its organised and disorganised manifestations. At the level of the individual person, Deep Listening asks us to attend to our positions as people linked to one community – and then another, and another and another – in which the sense of sound is the first and last point of social and political triangulation.⁶

Earlier in this chapter, I described how the germ of this research originated in a conversation that Lockwood and I had on our first meeting, which took place in

⁶ Oliveros often said that hearing is the first and last sense human beings have.

2012. Moving to the US was a liberation for her, she said: she found conditions there did not replicate all of the impediments that she experienced whilst in London. It was my realisation that composition (like any other kind of work) can only take place if the conditions of possibility for this to happen exist, took root in me. It changed my writing from that of music criticism, in which the context of any composition is not foregrounded, to the writing of research, which calls for the extrapolation of fact and theory to create a new field of analysis.

Musicality is the sonic medium in which composers habitually work. In this research, I have asked composers to work in a different sonic medium – that of speech – to talk about their lives, ideas and works. I have asked them to speak, to put on record what Dolar calls “the intimate kernel of subjectivity” (Dolar 2006: 14) that makes each speaker so distinctive. Importing their collective testimony into a framework that is shaped by the theoretical and practical axes of oral history and of psychoanalysis and is deepened by the application of the sonic artefact, I invite others to change their own narrative structures: to listen with an acuity that embraces a sonicity that joins us to ideas, to history, to each other – to a sonicity that holds not only history but, in its radical listening, anticipates future sounds.

Appendix:

Structure and form in Éliane Radigue’s “*Hein?*” story

Table 1: Narrative form

<u>Bernard Girard 2013</u>	<u>Hans Ulrich Obrist 2014</u>	<u>Louise Marshall 2015</u>
Interview conducted for book (no audio available). In French	Recorded video interview to accompany <i>Mémoires Vive</i>, Fondation Cartier, Paris. In French	Recorded audio interview for research. In English
	Early life (aged two/three years: ER would take refuge from mother in the garden, playing in a tent of beanpoles, when there were problems, compose sad songs to sing to her teddy bear and cry. (<i>Hein</i> 1 implicit)	
ER’s parents are shopkeepers [in Les Halles, Paris]		
		Family life is “grey”
Young ER discovers music via radio broadcasts (“ <i>un poste radiola</i> ”: Girard 2013: 27). She is fascinated by music	ER passionate about classical music from an early age, her “fundamental passion, a constant passion”	
		<i>Hein</i> 1. “At home, I was completely under the... my mother’s pressure, which was very dominant. And, you know, that was once she says so, she says something, whatsoever I was thinking, when she say, ‘ <i>Hein, Éliane?</i> ’, I just have one thing to answer: ‘Yes, mama.’ No discussion and that was a real pressure.”
		ER contrasts home life with the experience of freedom with cousins in the countryside.
		Father: a merchant. It is “... a very simple family, very <i>populaire</i> ”.

		Music, especially classical, not supported in family
ER's school-friend (female) is having piano lessons		ER's school-friend (female) is having piano lessons
		School-friend's mother (M2) notices ER's fascination with music
The two mothers know one another. M2 suggests to Mme Radigue that ER starts piano lessons with Mme Roger, who lives in the same apartment block as M2	ER: Mme Roger is "a marvellous piano teacher"	M2 suggests to Mme Radigue that ER starts piano lessons with Mme Roger
Praise for Mme Roger. For ER, she is " <i>la première personne vraiment importante dans ma vie</i> "	Praise for Mme Roger. "She gave me a lot, she practically taught me everything. It was a wonderful [<i>magnifique</i>] period"	Deep affection for Mme Roger, who gives ER "the chance of [her] life"
ER longs for Mme Roger and misbehaves when separated from her: " <i>Sans elle j'aurais pu très mal tourner</i> "		
ER makes quick progress in her lessons; moves from small (<i>petit d'étude</i>) piano to grand piano		ER makes quick progress in her lessons; moves from small to grand piano
		Mother jealous. ER: Mme Roger is "my goddess"
Premonition of disaster (" <i>C'était un signe</i> ")		
Mme Roger as ideal/good-enough mother; Mme Radigue as her antithesis ¹		
Mother stops lessons		
Jealous mother		
Severe mother, rules household and environs " <i>à la baguette</i> " ² (standing to attention/military metaphor). (Op. cit.: 28)		
<i>Hein 2</i> (Op. cit.: 28)		<i>Hein 2</i>

¹ "Elle m'a tout donné envers et contre ma mère qui a très vite voulu que j'arrête." (Girard 2013: 27)

² "Elle menait tout son monde, mon père, moi, j'étais fille unique, à la baguette." (Ibid: 28)

<i>Hein 1</i>		
Mme Roger and M2 devise a plan		Mme Roger and M2 devise a plan
On 'playdates', ER is sent upstairs to Mme Roger who awaits her		On 'playdates', ER is sent up to the fourth floor to Mme Roger who awaits her
Free lessons, also many opportunities to practise the piano		Free lessons
		ER afraid that her mother will find out about the secret lessons
ER's praise for, and acknowledgement of, Mme Roger, "...un professeur formidable. Je lui dois beaucoup." (Ibid)		ER's praise for Mme Roger
Mme Roger's daughter, "chanteuse d'art lyrique". (Ibid)	Mme Roger's daughter, Renée Roger, "chanteuse d'art lyrique"	Mme Roger's daughter a "lyric singer"
		Mme Roger's mother still alive at the time
		Mme Roger "was the best part of my life at that time"
		ER listens to classical music on radio
Mme Roger as the gateway to the discovery of a new world		Mme Roger opens up the world of Bach, Mozart up to ER

Table 2: Narrative themes

Girard 2013	Obrist 2014	Marshall 2015
	Bad mother (Mme Radigue) implied	Bad mother (Mme Radigue) identified
ER loves music	Music a refuge for ER	ER loves music
ER loves good mother (Mme Roger)	ER loves good mother (Mme Roger)	ER loves good mother (Mme Roger)
Bad mother identified		Bad mother amplified
Bad mother takes away music		Bad mother takes away music
Good mother and M2 rescue ER (magically reinstate lessons)	Good mother has two musical daughters: Renée and ER; rescue effected through fantasied alignment	Good mother and M2 rescue ER (magically reinstate lessons)

Key to Tables 1 and 2 above

ER = Éliane Radigue

Hein 1 = the “*Hein*” uttered by mother as an example of habitual severity: “*Or, quand ma mère disait ‘hein, Éliane?’*, *il n’y avait qu’une chose à répondre: ‘Oui, maman.’*” (Girard 2013: 28); “[...] Whatsoever I was thinking, when she say, ‘*Hein, Éliane?*’, I just have one thing to answer: ‘Yes, mama.’ No discussion and that was a real pressure.” (Marshall 2015c: 00:07:38)

Hein 2 = the “*Hein*” in the context of the cessation of music lessons: “*Éliane ne veut plus prendre de leçon de piano, hein, Éliane?*” (Girard 2013: 28); “After a while, my mother decide that, you know, it was too much and she bring me to Mme Roger, saying to Mme Roger: ‘You know, Éliane doesn’t want any more to take lessons with you. *Hein, Éliane?*’” (Marshall 2015c: 00:11:50)

M2 = unnamed mother of ER’s school-friend

Bibliography, interviews and recordings

- Abrams, Lynn. 2010. *Oral History Theory*. London; New York: Routledge.
- Adkins, Monty, Richard Scott, and Pierre Alexandre Tremblay. 2016. 'Post-Acoustic Practice: Re-Evaluating Schaeffer's Heritage'. *Organised Sound* 21 (02): 106–16.
- Adlington, Robert, ed. 2009. *Sound Commitments: Avant-Garde Music and the Sixties*. Oxford; New York: Oxford University Press.
- Adorno, Theodor W. 1973. *Philosophy of Modern Music*. New York: Seabury Press.
- Akhtar, Salman. 2013. *Psychoanalytic Listening: Methods, Limits, and Innovations*. London: Karnac Books.
- Alexievich, Svetlana. 2016. *Chernobyl Prayer*. Translated by Anna Gunin and Arch Tait. London: Penguin Books.
- . 2017. *The Unwomanly Face of War*. Translated by Richard Pevear and Larissa Volokhonsky. London: Penguin Books.
- Anderson, Kathryn, and Dana C. Jack. 1991. 'Learning to Listen: Interview Techniques and Analyses'. In *Women's Words: The Feminist Practice of Oral History*, edited by Sherna Berger Gluck and Daphne Patai. London and New York: Routledge.
- Anderson, Laurie. 2015. *Heart of a Dog*. Film.
- Anzieu, Didier. 1990. *Psychic Envelopes*. London: Karnac.
- Armitage, Sue. 2011. 'The Stages of Women's Oral History'. In *The Oxford Handbook of Oral History*, edited by Donald A. Ritchie, 169–185. New York: Oxford University Press.
- Armitage, Susan H., Patricia Hart, and Karen Weathermon, eds. 2002. *Women's Oral History: The 'Frontiers' Reader*. Lincoln and London: University of Nebraska Press.
- Ashley, Robert. 1984. *Perfect Lives*. DVD. Lovely Music.
- Attali, Jacques. 1985. *Noise: The Political Economy of Music*. Vol. 16. Theory and History of Literature. Minneapolis, London: University of Minnesota Press.

- Augoyard, Jean-François, and Henry Torgue, eds. 2005. *Sonic Experience: A Guide to Everyday Sounds*. Translated by Andra McCartney and David Paquette. Montreal: McGill-Queen's University Press.
- Austin, Larry, and Douglas Kahn. 2011. *Source: Music of the Avant-Garde, 1966-1973*. Berkeley: University of California Press.
- Austin, Larry, and Joan La Barbara. 1993. *The Virtuoso in the Computer Age: III*. CD. Vol. 13. CDCM Computer Music Series. Centaur Records, Inc.
- Baker, Alan. 2003. 'An Interview with Pauline Oliveros'. Radio programme. *American Mavericks*. American Public Media.
http://musicmavericks.publicradio.org/features/interview_oliveros.html.
- Beal, Amy C. 2006. *New Music, New Allies: American Experimental Music in West Germany from the Zero Hour to Reunification*. Berkeley and Los Angeles; London: University of California Press.
- . 2015. *Johanna Beyer*. Urbana, Chicago and Springfield: University of Illinois Press.
- Beard, Mary. 2017. 'Women in Power'. *London Review of Books*, 16 March 2017.
- Beecroft, Norma. 2016. *Conversations with Post World War II Pioneers of Electronic Music*. 2nd ed. Toronto: Canadian Music Centre.
- Bier, Anna. 2016. *Sounds and Sweet Airs: The Forgotten Women of Classical Music*. London: Oneworld.
- Bell, Gelsey. 2015. 'Voice-Acts: Performance and Relationality in the Vocal Activities of the American Experimental Music Tradition'. PhD thesis, New York: New York University.
- Bernstein, David W., ed. 2008. *The San Francisco Tape Music Center: 1960s Counterculture and the Avant-Garde*. Berkeley and Los Angeles; London: University of California Press.
- Bion, Wilfred R. 1984. *Elements of Psycho-Analysis*. London: Karnac.
- Bleger, José. 1967. 'Psycho-Analysis of the Psycho-Analytic Frame'. *International Journal of Psychoanalysis* 48: 511–19.
- Bollas, Christopher. 1978. *The Shadow of the Object: Psychoanalysis of the Unthought Known*. London: Free Association Books.
- Born, Georgina. 1995. *Rationalizing Culture: IRCAM, Boulez and the Institutionalization of the Musical Avant-Garde*. Oakland, CA: University of California Press.

- . 2005. 'On Musical Mediation: Ontology, Technology and Creativity'. *Twentieth-Century Music* 2 (01): 7–36.
- . ed. 2015. *Music, Sound and Space: Transformations of Public and Private Experience*. New York: Cambridge University Press.
- . 2016. 'How Can and Should We Write Alternative Histories of Electronic Musics? New Thoughts on Time, History, and Electronic Musics'. In *Alternative Histories of Electronic Music*. Science Museum Dana Research Centre, London.
- Born, Georgina, and Kyle Devine. 2016. 'Gender, Creativity and Education in Digital Musics and Sound Art'. *Contemporary Music Review* 35 (1): 1–20.
- Bosma, Hannah. 2003. 'Bodies of Evidence, Singing Cyborgs and Other Gender Issues in Electrovoical Music'. *Organised Sound* 8 (1).
- . 2006. 'Musical Washing Machines, Composer-Performers, and Other Blurring Boundaries: How Women Make a Difference in Electroacoustic Music'. *Intersections* 26 (2): 97–117.
- . 2013. 'The Electronic Cry: Voice and Gender in Electroacoustic Music'. PhD thesis, Amsterdam: University of Amsterdam. <http://hdl.handle.net/11245/1.400268>.
- Bowie, Malcolm. 1991. *Lacan*. Fontana Modern Masters. London: Fontana Press.
- Bray, Abigail. 2004. *Hélène Cixous: Writing and Sexual Difference*. Transitions. Basingstoke and New York: Palgrave Macmillan.
- Brett, Philip, Gary C. Thomas, and Elizabeth Wood. 2006. *Queering the Pitch: The New Gay and Lesbian Musicology*. 2nd ed. New York; London: Routledge.
- Brovold, Bill. 2009. 'Remembering Maryanne Amacher, a Sound Character'. *NewMusicBox* (blog). 26 October 2009. <http://www.newmusicbox.org/articles/Remembering-Maryanne-Amacher-A-Sound-Character/>.
- Buettner, Elizabeth. 2004. *Empire Families: Britons and Late Imperial India*. Oxford: Oxford University Press.
- Burgoyne, Bernard, ed. 2003. *Drawing the Soul: Schemas and Models in Psychoanalysis*. London: Karnac.
- . 2011. 'Spaces of Transformation: Borders, Part III'. In *Spaces of Transformation: Borders*. Tate Modern, London. <http://www.tate.org.uk/context-comment/video/topology-spaces-transformation-borders-video-recordings>.

- Butler, Judith. 1988. 'Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory'. *Theatre Journal* 40 (4): 519–531.
- . 1990. *Gender Trouble: Feminism and the Subversion of Identity*. London and New York: Routledge.
- . 2000. 'The Force of Fantasy: Feminism, Mapplethorpe, and Discursive Excess (1990)'. In *Feminism and Pornography*, edited by Drucilla Cornell. Oxford: Oxford University Press.
- Cage, John. 1961. *Silence: Lectures and Writings by John Cage*. Middletown, Connecticut: Wesleyan University Press.
- Candy, Linda. 2006. *Practice-Based Research: A Guide, CCS Report*. Sydney: University of Technology Sydney.
- Caplan, Lionel. 2001. *Children of Colonialism: Anglo-Indians in a Postcolonial World*. New York: Berg Publishing.
- Carlyle, Angus, and Cathy Lane, eds. 2013. *On Listening*. Axminster, Devon: Uniformbooks.
- Chion, Michel. 2009. *Guide to Sound Objects: Pierre Schaeffer and Musical Research*. Translated by John Dack and Christine North.
http://monoskop.org/images/0/01/Chion_Michel_Guide_To_Sound_Objects_Pierre_Schaeffer_and_Musical_Research.pdf.
- Citron, Marcia J. 1993. *Gender and the Musical Canon*. Cambridge: Cambridge University Press.
- Cixous, Hélène. 1976. 'The Laugh of the Medusa'. Translated by Keith Cohen and Paula Cohen. *Signs* 1 (4): 875–93.
- . 1994. 'Lemonade Was So Infinite'. In *The Hélène Cixous Reader*, edited by Susan Sellers, translated by Ann Liddle, 105–17. London and New York.
- Cixous, Hélène, and Catherine Clément. 1986. *The Newly Born Woman*. Translated by Betsy Wing. Vol. 24. Theory and History of Literature. Minneapolis, London: University of Minnesota Press.
- Collins, Nicolas. 2006. *Handmade Electronic Music: The Art of Hardware Hacking*. New York and London: Routledge.
- Cowley, Julian. 2004. 'All Strung Out'. *The Wire*, July 2004.
- . 2006. 'Cross Platform: Annea Lockwood'. *The Wire*, July 2006.
- . 2009. 'Electronic Voice Phenomenon'. *The Wire*, March 2009.
- . 2012a. 'Oh, What A Circus'. *The Wire*, February 2012.

- . 2012b. ‘Beating against the Current’. *The Wire*, June 2012.
- Cox, Christoph. 2005. ‘À La Recherche d’une Musique Féminine’. In *Her Noise*, edited by Lina Džuverović and Anne Hilde Neset, 9–13. Newcastle upon Tyne: Forma Arts and Media.
- Cox Lorraine, Renée. 2001. ‘Recovering Jouissance: Feminist Aesthetics and Music’. In *Women and Music – A History*, edited by Karin Pendle, 2nd ed., 3–18. Bloomington, Indiana: Indiana University Press.
- Curran, Alvin. 2009. ‘The Score: In Memory of Maryanne Amacher’. *The New York Times*, 27 December 2009.
- Cusick, Suzanne G. 1994. ‘On a Lesbian Relationship with Music: A Serious Effort Not To Think Straight’. In *Queering the Pitch: The New Gay and Lesbian Musicology*, edited by Philip Brett, Gary C. Thomas, and Elizabeth Wood, 67–83. New York, London: Routledge.
- . 2015. ‘Towards an Acoustemology of Detention in the “Global War on Terror”’. In *Music, Sound and Space: Transformations of Public and Private Experience*, edited by Georgina Born, 275–91. New York: Cambridge University Press.
- Dame, Joke. 1995. ‘Themes and Variations: Feminist Musicology’. In *Women’s Studies and Culture: A Feminist Introduction*, edited by Rosemarie Buikema and Anneke Smelik, 106–16. London and New Jersey: Zed Books.
- Dayal, Geeta. 2014. ‘Ellen Fullman: Invisible Jukebox’. *The Wire*, March 2014.
- Deep Listening Band, Long String Instrument. 1997. *Suspended Music*. CD. Periplum.
- Dempster, Stuart, and Louise Gray. 2016. ‘Reaction to Beethoven Was a Lesbian (Louise Gray in The Wire)’. Facebook/The Center for Deep Listening @ Rensselaer. Facebook. <https://tinyurl.com/y8k8nc9f>.
- Dietrich, Ralf. 2009. ‘ONCE and the Sixties’. In *Sound Commitments: Avant-Garde Music and the Sixties*, edited by Robert Adlington, 169–86. Oxford; New York: Oxford University Press.
- Dolar, Mladen. 2006. *A Voice and Nothing More*. Cambridge, Massachusetts, and London: MIT Press.
- Dudley, Kathryn Marie. 1998. ‘In the Archive, In the Field: What Kind of Document Is an “Oral History”?’ In *Narrative and Genre*, edited by Mary Chamberlain and

- Paul Thompson, 160–66. Routledge Studies in Memory and Narrative. London and New York: Routledge.
- Džuverović, Lina. 2012. ‘Hernoise, Heroines’. In *Her Noise: Feminisms and the Sonic*. Tate Modern, London. <http://hernoise.org/her-noise-hernoise-heroines/>.
- Džuverović, Lina, and Anne Hilde Neset, eds. 2005. *Her Noise*. Newcastle upon Tyne: Forma Arts and Media.
- Emmerson, Simon. 2016. ‘The Many Histories’. In *Alternative Histories of Electronic Music*. London.
- Etchegoyen, R. Horacio. 1991. *The Fundamentals of Psychoanalytic Technique*. Translated by Patricia Pitchon. London: Karnac.
- Farge, Arlette. 2013. *The Allure of the Archives*. Translated by Thomas Scott-Railton. New Haven: Yale University Press.
- Febvre, Lucien. 1932. ‘Albert Mathiez: Un Tempérament, Une Éducation’. *Annales d’histoire Économique et Sociale*, no. 18: 573–76.
- Feld, Steven. 1996. ‘Waterfalls of Song: An Acoustemology of Place Resounding in Bosavi, Papua New Guinea’. In *Senses of Place*, edited by Steven Feld and Keith Basso, 91–135. Santa Fe, NM: School of American Research Press.
- Feld, Steven, and Donald Brenneis. 2004. ‘Doing Anthropology in Sound’. *American Ethnologist* 31 (4): 461–74.
- Figlio, Karl. 1988. ‘Oral History and the Unconscious’. *History Workshop Journal*, no. 26: 120–32.
- Forbes, Jack D. 1983. ‘Mustees, Half-Breeds and Zambos in Anglo North America: Aspects of Black-Indian Relations’. *American Indian Quarterly* 7 (1): 57–83.
- Freud, Sigmund. 1953. ‘Recommendations to Physicians Practising Psycho-Analysis (1912e)’. In *The Case of Schreber, Papers on Technique and Other Works*, edited by Angela Richards, The Standard Edition of the Complete Psychological Works of Sigmund Freud, XII (1911-13): 109–20. London: Hogarth Press and the Institute of Psycho-Analysis.
- . 1958a. ‘The Dynamics of Transference (1912b)’. In *The Case of Schreber, Papers on Technique and Other Works*, edited by Angela Richards, The Standard Edition of the Complete Psychological Works of Sigmund Freud, XII (1911-13): 99–108. London: Hogarth Press and the Institute of Psycho-Analysis.
- . 1958b. ‘The Handling of Dream-Interpretation in Psycho-Analysis (1911e)’. In *The Case of Schreber, Papers on Technique and Other Works*, edited by

- Angela Richards, XII (1911-13): 89–96. *The Standard Edition of the Complete Psychological Works of Sigmund Freud*. London: Hogarth Press and the Institute of Psycho-Analysis.
- . 1976. *The Interpretation of Dreams* (1900a). Edited by Angela Richards. Translated by James Strachey. Vol. 4. Harmondsworth: Penguin Books.
- . 1984a. ‘Formulations on the Two Principles of Mental Functioning (1911b)’ . In *On Metapsychology*, edited by Angela Richards, translated by James Strachey, 11: 29–44. The Penguin Freud Library. London: Penguin Books.
- . 1984b. ‘Mourning and Melancholia (1917e [1915])’ . In *On Metapsychology: The Theory of Psychoanalysis: Beyond the Pleasure Principle, The Ego and the Id, and Other Works*, edited by Angela Richards, 245–68. Harmondsworth: Penguin.
- . 1986a. ‘An Outline of Psychoanalysis (1940 [1938])’ . In *Historical and Expository Works on Psychoanalysis*, edited by Albert Dickson, translated by James Strachey, 15:371–429. The Pelican Freud Library. Harmondsworth: Penguin Books.
- . 1986b. ‘The Question of Lay Analysis (1926e)’ . In *Historical and Expository Works on Psychoanalysis*, edited by Albert Dickson, 15: 279–363. The Pelican Freud Library. London: Penguin Books.
- . 1990. ‘The “Uncanny” (1919)’ . In *Art and Literature*, edited by Albert Dickson, 14: 335–76. Penguin Freud Library. Harmondsworth.
- . 1991. *Jokes and Their Relation to the Unconscious* (1905c). Edited by Angela Richards. Translated by James Strachey. Vol. 6. The Penguin Freud Library. Harmondsworth: Penguin Books.
- . 2001. ‘Freud’s Psycho-Analytic Procedure (1904a [1903])’ . In *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, edited by James Strachey, Alix Strachey, Anna Freud, Alan Tyson, and Angela Richards, [Repr.], VII (1901-1905): 249–54. London: Vintage.
- Freund, Alexander. 2017. ‘From .Wav to .Txt: Why We Still Need Transcripts in the Digital Age’ . *Oral History* 45 (1): 33–42.
- Fromm, Erich. 1994. *The Art of Listening*. London: Constable.
- Fuller, Sophie. 1994. *The Pandora Guide to Women Composers: Britain and the United States, 1629-Present*. London: Pandora.
- Fullman, Ellen. 1980. *Streetwalker*. <https://vimeo.com/45207205>.

- . 1983. *Long String Instrument Terminal NY*. <https://vimeo.com/45210573>.
- . 1985. *The Long String Instrument*. LP. Het Apollohuis.
- . 1987. *Work for 4 Players and 90 Strings*. Cassette.
- . 1993. *Body Music*. CD. New York: Experimental Intermedia Foundation.
- . 1998. *Change of Direction*. CD. New Albion Records.
- . 2003. 'The Long String Instrument'. *Musicworks*, Spring 2003.
- . 2004. *Staggered Stasis*. CD. Seattle, WA: Anomalous Records.
- . 2012. 'A Compositional Approach Derived from Material and Ephemeral Elements'. *Leonardo Music Journal*, no. 22 (December): 3–10.
- Fullman, Ellen, and Monique Buzzarté. 2007. *Fluctuations*. CD. Kingston, NY: Deep Listening Institute.
- Fullman, Ellen, and Konrad Sprenger. 2004. *Ort*. CD. Choose Records.
- Gagne, Cole. 1993. *Soundpieces 2: Interviews with American Composers*. Metuchen, N.J., & London: Scarecrow Press, Inc.
- Gagne, Cole, and Tracy Caras. 1982. *Soundpieces: Interviews with American Composers*. Metuchen, N.J., & London: Scarecrow Press, Inc.
- Gann, Kyle. 1997. *American Music in the Twentieth Century*. New York: Schirmer Books.
- . 2006. *Music Downtown*. Berkeley and Los Angeles, California: University of California Press.
- . 2009a. 'All Stick, No Carrot'. *PostClassic: Kyle Gann on Music after the Fact* (blog). 2 April 2009.
https://www.artsjournal.com/postclassic/2009/04/all_stick_no_carrot.html.
- . 2009b. 'Maryanne Amacher (1943-2009)'. *PostClassic: Kyle Gann on Music after the Fact* (blog). 22 October 2009.
http://www.artsjournal.com/postclassic/2009/10/maryanne_amacher_1943-2009.html.
- Gayou, Évelyne. 2007a. *GRM: Le Groupe de Recherches Musicales: cinquante ans d'histoire*. Les chemins de la musique. Paris: Fayard.
- . 2007b. 'The GRM: Landmarks on a Historic Route'. *Organised Sound* 12 (3): 203–11.
- . , ed. 2009. *Pierre Schaeffer: Polychrome Portraits*. Paris: Institut national de l'audiovisuel.

- . , ed. 2013. *Éliane Radigue: Portraits Polychromes*. Paris: Institut national de l'audiovisuel.
- Gilbert, Shirli. 2005. 'Music as Historical Source: Social History and Musical Texts'. *International Review of the Aesthetics and Sociology of Music* 36 (1): 117.
- . 2008. 'Buried Monuments: Yiddish Songs and Holocaust Memory'. *History Workshop Journal* 66 (1): 107–128.
- Ginzburg, Carlo. 1976. *The Cheese and the Worms: The Cosmos of a Sixteenth-Century Miller*. London: Routledge & Kegan Paul.
- Girard, Bernard. 2013. *Entretiens avec Éliane Radigue*. Château-Gontier: Éditions Aedam Musicae.
- Glass, Philip. 1987. *Music by Philip Glass*. New York: Harper & Row.
- Gluck, Sherna Berger. 2002. 'What's So Special about Women? Women's Oral History'. In *Women's Oral History: The 'Frontiers' Reader*, edited by Susan H. Armitage, Patricia Hart, and Karen Weathermon. Lincoln and London: University of Nebraska Press.
- Glueck, Grace. 1983. 'Art: A Huge Exhibition at Broadway Terminal'. *The New York Times*, 30 September 1983. <http://www.nytimes.com/1983/09/30/arts/art-a-huge-exhibition-at-broadway-terminal.html?pagewanted=1>.
- Gonsher, Aaron. 2016. 'Joan La Barbara'. www.redbullmusicacademy.com/lectures/joan-la-barbara-lecture.
- Gottschalk, Jennie. 2016. *Experimental Music Since 1970*. New York and London: Bloomsbury Academic.
- Gray, Louise. 2005. 'Emma Hedditch: We're Alive, Let's Meet: Social Patterns'. In *Her Noise*, 49–50. Newcastle upon Tyne: Forma Arts and Media.
- . 2009. 'Maryanne Amacher 1938-2009'. *The Wire*, December 2009.
- . 2014. 'Pauline Oliveros: Pure Noise'. In *Whitney Biennial 2014*, 116–119. New York: Whitney Museum of American Art.
- . 2015. 'Historical Documents of the Irish Avant-Garde'. *The Wire*, April 2015.
- . 2016a. 'Beethoven Was a Lesbian: Tracing an Alternative History of Music Mapped by Pauline Oliveros and Alison Knowles'. *The Wire (Online)*, December 2016. <http://www.thewire.co.uk/in-writing/essays/pauline-oliveros-louise-gray#>.
- . 2016b. 'Music of Changes'. *The Wire*, December 2016.

- Green, Lucy. 1997. *Music, Gender, Education*. Cambridge: Cambridge University Press.
- Griffiths, Paul. 1978. *Modern Music: A Concise History from Debussy to Boulez*. London: Thames & Hudson.
- Gruber, Jacob W. 1970. 'Ethnographic Salvage and the Shaping of Anthropology'. *American Anthropologist* 72 (6): 1289–99.
- Halstead, Jill. 1997. *The Woman Composer: Creativity and the Gendered Politics of Musical Composition*. Aldershot: Ashgate.
- Hamilton, Carrie. 2008. 'On Being a "Good" Interviewer: Empathy, Ethics and the Politics of Oral History'. *Oral History* 36 (2, Connections): 35–43.
- Heimann, Paula. 1989a. 'Counter-Transference (1959/60)'. In *About Children and Children No-Longer: Collected Papers 1942-80*, edited by Margret Tönnemann, 151–60. London and New York: Tavistock/Routledge.
- . 1989b. 'Dynamics of Transference Interpretations (1955/56)'. In *About Children and Children-No-Longer: Collected Papers 1942-80*, edited by Margret Tönnemann, 108–21. London and New York: Tavistock/Routledge.
- Hinkle-Turner, Elizabeth. 2006. *Women Composer and Music Technology in the United States: Crossing the Line*. Aldershot: Ashgate.
- Holmes, Thom. 2016. *Electronic and Experimental Music: Technology, Music, and Culture*. 5th ed. New York, New York: Routledge.
- Hovancsek, Mike. 1998. 'Ellen Fullman's Long String Instrument'. *Experimental Musical Instruments*, March 1998.
- Hutton, Jo. 2002. 'Radiophonic Ladies'. 2002. <http://delia-derbyshire.net/sites/ARTICLE2000JoHutton.html>.
- . 2003. 'Daphne Oram: Innovator, Writer and Composer'. *Organised Sound* 8 (1): 49–56.
- Iddon, Martin. 2013. *New Music at Darmstadt: Nono, Stockhausen, Cage, and Boulez*. Cambridge, UK; New York: Cambridge University Press.
- Iitti, Sanna. 2006. *The Feminine in German Song*. New York: Peter Lang.
- Ingleton, Holly. 2015. 'Composing Paradoxes Feminist Process in Sound Arts and Experimental Musics'. London: City University.
- Jackson, Ashley. 2013. *A Very Short History of the British Empire*. Oxford: Oxford University Press.

- Johnson, Tom. 1989. *The Voice of New Music: New York City 1972-1982*. The Netherlands: Het Apollohuis.
- Kane, Brian. 2014. *Sound Unseen: Acousmatic Sound in Theory and Practice*. New York, NY: Oxford University Press.
- Klein, Melanie. 1987. 'Notes on Some Schizoid Mechanisms'. In *Envy and Gratitude and Other Works, 1946-1963*, III:1–24. The Writings of Melanie Klein. London: Hogarth Press and the Institute of Psycho-Analysis.
- Knowles, Alison, and Anna [Annea] Lockwood. 1975. *Womens Work*. Vol. 1. New York: self-published.
- Kostelanetz, Richard, ed. 1988. *Conversing with Cage*. London, New York, Sydney: Omnibus Press.
- Kristeva, Julia. 1984. *Revolution in Poetic Language*. Translated by Margaret Waller. New York: Columbia University Press.
- La Barbara, Joan. 1976. *Voice Is the Original Instrument*. LP. Wizard Records.
- . 1985. *The Art of Joan La Barbara*. 2 x LP. Nonesuch Records.
- . 1993. *La Barbara: The Name, The Sounds, The Music* (1991) on *The Virtuoso in the Computer Age: III*. CD. Vol. 13. CDMC Computer Music Series. Centaur Records, Inc.
- LaBelle, Brandon. 2010. *Acoustic Territories: Sound Culture and Everyday Life*. New York and London: Continuum.
- . 2016. *Background Noise: Perspectives on Sound Art*. 2nd ed. New York and London: Bloomsbury Academic.
- Lacan, Jacques. 1982. 'Seminar of 21 January 1975 (Seminar XXII)'. In *Feminine Sexuality: Jacques Lacan and the École Freudienne*, edited by Juliet Mitchell and Jacqueline Rose, 162–71. Houndmills, Basingstoke and London: Macmillan Academic and Professional.
- . 1985. *Feminine Sexuality: Jacques Lacan and the École Freudienne*. Edited by Juliet Mitchell and Jacqueline Rose. Translated by Jacqueline Rose. New York and London: W.W. Norton & Company.
- . 1992. *The Ethics of Psychoanalysis, 1959-1960, Book VII*. Edited by Jacques-Alain Miller. London: Tavistock/Routledge.
- Lane, Cathy, ed. 2008. *Playing with Words: The Spoken Word in Artistic Practice*. London: CRiSAP (Creative Research into Sound Arts Practice), London College of Communication.

- . 2016a. ‘Sound::Gender::Feminism::Activism: Research and Challenges to the Orthodoxies of Sound Arts’. *Contemporary Music Review* 35 (1): 32–39.
- . 2016b. ‘Why Not Our Voices?’ *Women and Music: A Journal of Gender and Culture*, no. 20: 96–110.
- . 2017. ‘Listening and Not Listening to Voices: Interrogating the Prejudicial Foundations of the Sound Arts Canon (Audio Paper)’. *Seismograf: Sound Art Matters*.
- Lane, Cathy, and Angus Carlyle. 2013. *In The Field: The Art of Field Recording*. Axminster, Devon: Uniformbooks.
- Lane, Cathy, Angus Carlyle, and Holly Ingleton, eds. 2016. *Sound::Gender::Feminism::Activism Zine*. CRiSAP (Creative Research into Sound Arts Practice), London College of Communication.
- Larson, Kay. 2012. *Where the Heart Beats: John Cage, Zen Buddhism, and the Inner Life of Artists*. New York: Penguin Press.
- Latour, Bruno. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford; New York: Oxford University Press.
- Lecourt, Édith. 1983. ‘Le sonore et les limites du Soi’. *Bulletin de Psychologie* XXXVI (11/15): 577–82.
- . 1990. ‘The Musical Envelope’. In *Psychic Envelopes*, edited by Didier Anzieu, 211–35. London: Karnac Books.
- Lefebvre, Henri. 1991. *The Production of Space*. Translated by Donald Nicholson-Smith. Oxford: Blackwell Publishing.
- Le Roy Ladurie, Emmanuel. 1980. *Montaillou: Cathars and Catholics in a French Village 1294-1324*. Translated by Barbara Bray. Harmondsworth: Penguin Books.
- Lippard, Lucy R. 1976. *From the Center: Feminist Essays on Women’s Art*. New York: Dutton.
- Lockwood, Annea. 1968. *Scores for Piano Transplants*.
- . 2005. ‘How to Prepare a Piano’. In *Sound Scripts: Proceedings of the Inaugural Totally Huge New Music Festival Conference 2005*, 1:20–23.
- . 2012. *In Our Name*. CD. Brooklyn, NY: New World Records.
- . 2016a. *bayou-borne, for Pauline*.
- . 2016b. ‘RE: Corrected Script Attached’, 30 June 2016.
- . 2016c. ‘Re: Dusk Report’, 5 October 2016.

- . 2016d. ‘RE: Destruction In Art Symposium, 9-11 Sept 1966’, 21 October 2016.
- . 2016e. ‘RE: Destruction In Art Symposium, 9-11 Sept 1966’, 21 October 2016.
- . 2016f. ‘Re: Deep Condolences’, 26 November 2016.
- . 2017a. *Tiger Balm* (1970). LP. Black Truffle.
- . 2017b. ‘SOURCE Magazine’, 30 June 2017.
- Lockwood, Annea, and Ruth Anderson. 1997. *Sinopah*. CD. New York, N.Y.: Experimental Intermedia Foundation.
- Lockwood, Annea, and Bob Bielecki. 2014. *Wild Energy*. Sound installation.
- . 2018. *Wild Energy*. CD. *The Secret Life of the Inaudible*. Germany: Gruenrekorder.
- Lockwood, Annea, and Lois Svard. 2005. *Ear-Walking Woman*. DVD. Innovera Studios.
- Lucier, Alvin. 1969. *I am sitting in a room*. Composition.
- . 1992. *Music on a Long Thin Wire*. CD. New York: Lovely Music.
- . 2012. *Music 109: Notes on Experimental Music*. Middletown, Connecticut: Wesleyan University Press.
- Makari, George, and Theodore Shapiro. 1993. ‘On Psychoanalytic Listening: Language and Unconscious Communication’. *Journal of the American Psychoanalytic Association* 41 (4): 991–1020.
- Malcolm, Janet. 1991. *The Journalist and the Murderer*. London: Bloomsbury.
- Marshall, Louise. 2015a. Ellen Fullman interview. WAV file.
- . 2015b. Thurston Moore interview. WAV file.
- . 2015c. Éliane Radigue interview. WAV file.
- . 2016a. Annea Lockwood interview. WAV file.
- . 2016b. Joan La Barbara interview. WAV file.
- . 2016c. Pauline Oliveros interview. WAV file.
- . 2016d. ‘Destruction In Art Symposium, 9-11 Sept 1966’, 20 October 2016.
- McCartney, Andra. 2006. ‘Gender, Genre and Electroacoustic Soundmaking Practices’. *Intersections* 26 (262): 20–48.
- McCartney, Andra, and Ellen Waterman. 2006. ‘Introduction: In and Out of the Sound Studio’. *Intersections* 26 (2): 3–19.

- McClary, Susan. 1989. 'Terminal Prestige: The Case of Avant-Garde Music Composition'. *Cultural Critique: Discursive Strategies and the Economy of Prestige*, no. 12 (Spring): 57–81.
- . 1991. *Feminine Endings: Music, Gender, and Sexuality*. 2nd ed. Minneapolis: University of Minnesota Press.
- McMurray, Peter. 2017. 'One Upon a Time: A Superficial History of Early Tape'. *Twentieth-Century Music* 14 (1): 25–48.
- McPherson, Tara. 2003. *Reconstructing Dixie: Race, Gender, and Nostalgia in the Imagined South*. Durham: Duke University Press.
- Merleau-Ponty, Maurice. 1962. *Phenomenology of Perception*. Translated by Colin Smith. London and Henley: Routledge & Kegan Paul.
- Mertens, Wim. 1983. *American Minimal Music*. Translated by J. Hautekiet. London: Kahn & Averill.
- Mockus, Martha. 2008. *Sounding Out: Pauline Oliveros and Lesbian Musicality*. New York and London: Routledge.
- Moore, Kate. 1997. 'Perversion of the Word: The Role of Transcripts in Oral History'. *Words and Silences, Bulletin of the International Oral History Association* 1 (1): 14–25.
- Morgan, Frances. 2017a. 'Delian Modes: Listening for Delia Derbyshire in Histories of Electronic Dance Music'. *Dancecult: Journal of Electronic Dance Music Culture* 9 (1): 9–27.
- . 2017b. 'Pioneer Spirits: New Media Representations of Women in Electronic Music History'. *Organised Sound* 22 (2): 238–49.
- Mouton, Michelle, and Helena Pohlandt-McCormick. 1999. 'Boundary Crossings: Oral History of Nazi Germany and Apartheid South Africa: A Comparative Perspective'. *History Workshop Journal*, no. 48: 41–63.
- Mulvey, Laura. 2009. 'Visual Pleasure and Narrative Cinema' (1975). In *Visual and Other Pleasures*, 2nd ed., 14–27. Bloomington: Indiana University Press.
- Mumma, Gordon. 2015. 'What We Did Last Summer: A Commentary on ICES 72 (1973)'. In *Cybersonic Arts: Adventures in American New Music*, edited by Michelle Fillion, 73–78. Urbana, Chicago, and Springfield: University of Illinois Press.
- Murray, Martin. 2016. *Jacques Lacan: A Critical Introduction*. London: Pluto Press.

- Nancy, Jean-Luc. 2007. *Listening*. Translated by Charlotte Mandell. New York: Fordham University Press.
- Neset, Anne Hilde. 2005. 'Tangled Cartography: The Mapping of Her Noise'. Her Noise Archive. 2005. <http://hernoise.org/tangled-cartography/>.
- . 2013. 'Ohm Alone'. *The Wire*, August 2013.
- Nickel, Luke. 2016. 'Occam Notion: Collaboration and the Performer's Perspective in Éliane Radigue's Occam Ocean'. *Tempo* 70 (275): 22–35.
- Nochlin, Linda. 2015a. 'Why Have There Been No Great Women Artists? (1971)'. In *Women Artists: The Linda Nochlin Reader*, edited by Maura Reilly, 42–68. London: Thames & Hudson.
- . 2015b. "'Why Have There Been No Great Women Artists?'" Thirty Years After (2006)'. In *The Linda Nochlin Reader*, edited by Maura Reilly, 311–21. London: Thames & Hudson.
- . 2015c. *Women Artists: The Linda Nochlin Reader*. Edited by Maura Reilly. London: Thames & Hudson.
- Norman, Katharine. 2017. 'That Passing Glance: Sounding Paths Between Memory and Familiarity'. In *The Routledge Companion to Sounding Art*, edited by Marcel Cobussen, Vincent Meelberg, and Barry Truax, 179–90. New York and Abingdon: Routledge.
- Nyman, Michael. 1974. *Experimental Music: Cage and Beyond*. London: Studio Vista.
- . 1999. *Experimental Music: Cage and Beyond*. 2nd ed. Cambridge; New York: Cambridge University Press.
- Obrist, Hans Ulrich, and Éliane Radigue. 2014. *L'entretien infini: Éliane Radigue – Conversation avec Hans Ulrich Obrist*. Mémoires Vives. Fondation Cartier pour l'art contemporain, Paris. <https://www.youtube.com/watch?v=l6gncKkp34E>.
- Oliveros, Pauline. 1974. *Sonic Meditations*. Baltimore, MD.: Smith Publ. American Music.
- . 1976. *Pauline's Proverbs*. Edited by Linda M. Montano. Berkeley, California: Unpublished Editions/Serendipity Books. <https://www.youtube.com/watch?v=DmLWMw2RrSM>.
- . 1995. 'Acoustic and Virtual Space as a Dynamic Element of Music'. *Leonardo Music Journal* 5: 19–22.
- . 1998. *The Roots of the Moment*. New York: Drogue Press.

- . 2004. 'Rodeo in Houston'. In *Auge & Ohr/Ear & Eye: Begegnungen Mit Weltmusik: Encounters with World Music*, edited by Christoph Wagner, 50–53. Mainz: Schott Musik International.
- . 2008. 'Memoir of a Community Enterprise'. In *The San Francisco Tape Music Center: 1960s Counterculture and the Avant-Garde*, edited by David W. Bernstein, 80–94. Berkeley and Los Angeles; London: University of California Press.
- . 2012. *Reverberations: Tape and Electronic Music, 1961-1970*. 12 CDs. Important Records.
- . 2015a. 'And Don't Call Them "Lady" Composers'. In *Software for People*, 2nd ed., 47–51. Kingston, NY: Pauline Oliveros Publications.
- . 2015b. *Software for People: Collected Writings 1963-80*. 2nd ed. Kingston, NY: Pauline Oliveros Publications.
- . 2015c. 'The Difference between Hearing and Listening'. presented at the TEDxIndianapolis, November 12. <https://tinyurl.com/y7vbrvh3>.
- Oliveros, Pauline, Stuart Dempster, and Panaiotis. 1989. *Deep Listening*. New Albion Records.
- Oliveros, Pauline, and Alison Knowles. 1974a. *Beethoven Was a Lesbian (Postcard Theater)*. Five postcards.
- . 1974b. *Postcard Theater*. Five postcards, multiple.
- . 2013. *Postcard Theatre*. Berlin: Editions AcquAviva.
- Oliveros, Pauline, Annea Lockwood, Ruth Anderson, and Linda M. Montano. 1998. *Lesbian American Composers*. CD. New York, NY: CRI.
- Oliveros, Pauline, and Fred Maus. 1994. 'A Conversation About Feminism and Music'. *Perspectives of New Music* 32 (2): 174–193.
- Panzner, Joe. 2015. *The Process That Is the World: Cage/Deleuze/Events/Performances*. New York: Bloomsbury Academic.
- Parker, Rozsika, and Griselda Pollock. 1995. *Framing Feminism*. London; New York: Pandora.
- . 2013. *Old Mistresses: Women, Art and Ideology*. London: I.B. Tauris.
- 'Pauline Oliveros Interviews Annea Lockwood'. 1972. *Ode to Gravity*. San Francisco: KPFA. <http://radiom.org/detail.php?omid=OTG.1972.12.20.A>.
- Pendle, Karin Anna, ed. 2001. *Women and Music: A History*. 2nd ed. Bloomington, Indiana: Indiana University Press.

- Perks, Robert, and Alistair Thomson. 2006. *The Oral History Reader*. 2nd ed. London; New York: Routledge.
- Pettman, Dominic. 2017. *Sonic Intimacy: Voices, Species, Technics (or, How To Listen to the World)*. Stanford, California: Stanford University Press.
- Phelan, Peggy. 1993. *Unmarked: The Politics of Performance*. London and New York: Routledge.
- Piekut, Benjamin. 2011. *Experimentalism Otherwise: The New York Avant-Garde and Its Limits*. Berkeley, California; London: University of California Press.
- . 2014. 'Indeterminacy, Free Improvisation, and the Mixed Avant-Garde: Experimental Music in London, 1965-1975'. *Journal of the American Musicological Society* 67 (3): 769–824.
- Pollock, Griselda. 1999. *Differencing the Canon: Feminist Desire and the Writing of Art's Histories*. London: Routledge.
- Portelli, Alessandro. 1991. *The Death of Luigi Trastulli and Other Stories: Form and Meaning in Oral History*. New York: The State University of New York Press.
- . 1998. 'Oral History as Genre'. In *Narrative and Genre*, edited by Mary Chamberlain and Paul Thompson, 23–45. Routledge Studies in Memory and Narrative. London and New York: Routledge.
- . 2006. 'What Makes Oral History Different'. In *The Oral History Reader*, edited by Robert Perks and Alistair Thomson, 2nd ed., 32–42. London; New York: Routledge.
- Propp, Vladimir. 1968. *Morphology of the Folktale*. Edited by Louis A. Wagner. Translated by Laurence Scott. 2nd ed. Indiana University Research Center in Anthropology, Folklore, and Linguistics, Publication 10. Austin: University of Texas Press.
- Prosaïc, Anaïs. 2011. *Éliane Radigue: l'écoute virtuose*. La Huit.
- Quinlan, Mary Kay. 2011. 'The Dynamics of Interviewing'. In *The Oxford Handbook of Oral History*, 23–36. New York: Oxford University Press.
- Radigue, Éliane. 1985. *Songs of Milarepa*. 2 CDs. Lovely Music.
- . 1998. *Trilogie de La Mort*. 3 CDs. New York: Experimental Intermedia Foundation.
- . 2009a. *Vice Versa, Etc.-- (1970): Feedback on Magnetic Tape*. 2 CDs. Groveland, MA: Important Records.

- . 2009b. ‘The Mysterious Power of the Infinitesimal’. *Leonardo Music Journal* (October): 47–49.
- . 2011. *Transmorem-Transmortem*. CD. Groveland, MA: Important Records.
- Radigue, Éliane, and Évelyne Gayou. 2014. Interview à Éliane Radigue: La période archéologique – Pierre Schaeffer, video. <http://www.inagrm.com/eliane-radigue-interview-0>.
- Reik, Theodor. 1936. *Surprise and the Psycho-Analyst: On the Conjecture and Comprehension of Unconscious Processes*. Translated by Margaret Green. London: K. Paul, Trench, Trubner & Co.
- . 1972. *Listening with the Third Ear: The Inner Experience of a Psychoanalyst (1948)*. New York: Arena Books/Farrar, Straus & Giroux.
- Rodgers, Tara. 2010. *Pink Noises: Women on Electronic Music and Sound*. Durham and London: Duke University Press.
- . 2015. ‘Tinkering with Cultural Memory: Gender and the Politics of Synthesizer Historiography’. *Feminist Media Histories* 1 (4): 5–30.
- Roper, Michael. 2003. ‘Analysing the Analysed: Transference and Counter-Transference in the Oral History Encounter’. *Oral History* 31 (2): 20–32.
- Rosenberg, Suzanne van. 2017. ‘Towards a Transdisciplinary Model for Social Change: Feminist Art Research, Practice and Activism’. PhD thesis, London: Middlesex University.
- Rothfuss, Joan. 2014. *Topless Cellist: The Improbable Life of Charlotte Moorman*. Cambridge, Massachusetts: MIT Press.
- Rovelli, Carlo. 2016. *Seven Brief Lessons on Physics*. UK: Penguin Books.
- Russell, Bertrand. 1975. *History of Western Philosophy*. 8th ed. Oxford: George Allen & Unwin.
- Rycenga, Jennifer. 1994. ‘The Uncovering of Ontology in Music: Speculative and Conceptual Feminist Music’. *Repercussions* 3: 22–46.
- Sachs, Joel. 2012. *Henry Cowell: A Man Made of Music*. Oxford; New York: Oxford University Press.
- Sadie, Stanley, ed. 2001. *The New Grove Dictionary of Music and Musicians*. 2nd edition. Vol. 3. 29 vols. London: Macmillan.
- Saint, Tony. 2004. ‘The World’s Worst Orchestra’. *Daily Telegraph*, 25 May 2004. <https://tinyurl.com/yatkkrrar>.

- Samuel, Raphael. 1972. 'Perils of the Transcript Oral History'. *Oral History* 1 (2): 19–22.
- ., ed. 1982. *Culture, Ideology and Politics*. Abingdon: Routledge & Kegan Paul.
- Sandino, Linda, and Matthew Partington. 2013. *Oral History in the Visual Arts*. London: Bloomsbury Academic.
- Satz, Aura. 2014. *Dial Tone Drone*. Film.
- . 2016. *Little Doorways to Paths Not Yet Taken*. Film.
- Saunders, Frances Stonor. 1999. *Who Paid the Piper? The CIA and the Cultural Cold War*. London: Granta Books.
- Schaeffer, Pierre. 1966. *Traité Des Objets Musicaux. Essai Interdisciplines, Etc.* Paris: Seuil.
- . 2012. *In Search of a Concrete Music (À La Recherche d'une Musique Concrète)(1952)*. Translated by Christine North and John Dack. Berkeley and Los Angeles, California: University of California Press.
- . 2017. *Treatise on Musical Objects: Essays Across Disciplines*. Translated by John Dack and Christine North. Berkeley: University of California Press.
- Schafer, Roy. 2005. 'Listening in Psychoanalysis'. *Narrative* 13 (3): 271–80.
- Schimana, Elisabeth, and Elena Tikhonova. 2013. *IMAfiction #06 Maryanne Amacher*. <https://vimeo.com/87401740>.
- Schwarz, David. 1997. 'Music as Sonorous Envelope and Acoustic Mirror'. In *Listening Subjects: Music, Psychoanalysis, Culture*, 7–22. Durham and London: Duke University Press.
- Shintani, Joyce. 2016. *Hélène Cixous, Écriture Féminine and Musical Analysis*. Stuttgart: Lektorat-Baer.
- Shostak, Marjorie. 2006. "'What the Wind Won't Take Away": The Genesis of Nisa – the Life and Words of a !Kung Woman (1989)'. In *The Oral History Reader*, edited by Robert Perks and Alistair Thomson, 2nd ed., 382–92. Oxford: Routledge.
- Silver, Micah. 2015. 'Re: Maryanne Amacher Archive Question', 5 October 2015.
- Smith, Terry. 2009. *What Is Contemporary Art?* Chicago: University of Chicago Press.

- Spivak, Gayatri Chakravorty. 1988. 'Can the Subaltern Speak?' In *Marxism and the Interpretation of Culture*, edited by Cary Nelson and Lawrence Grossberg, 271–313. Basingstoke: Macmillan Education.
- Staniszewski, Mary Anne. 2017. 'Call Them Composers!' *Pauline Oliveros, A Manifesto/Poem/Portrait*. Text.
- Stratigakos, Despina. 2016a. *Where Are the Women Architects?* Places Books. Princeton: Princeton University Press.
- . 2016b. 'Unforgetting Women Architects: From the Pritzker to Wikipedia (2013)'. *Places Online Journal*, April.
- Stuart, Mary. 1993. "'And How Was It for You, Mary?": Self, Identity and Meaning for Oral Historians'. *Oral History* 21 (2): 80–83.
- Szell, Michael, and Stefan Thurner. 2013. 'How Women Organize Social Networks Different from Men'. *Scientific Reports* 3 (February): 1–6.
- Taylor, Timothy D. 1993. 'The Gendered Construction of the Musical Self: The Music of Pauline Oliveros'. *The Musical Quarterly* 77 (3): 385–96.
- Thompson, Dave. 2013. *June 1st 1974: Kevin Ayers, John Cale, Nico, Eno, Mike Oldfield and Robert Wyatt: The Greatest Supergroup of the Seventies*. CreateSpace.
- . 2017. *The Avant-Garde Woodstock: The International Carnival of Experimental Sound, 1972*. London: CreateSpace Independent Publishing Platform.
- Thompson, E.P. 1966. 'History from Below' *Times Literary Supplement* (April): 279–80.
- Thompson, Marie. 2017. *Beyond Unwanted Sound: Noise, Affect and Aesthetic Moralism*. London and New York: Bloomsbury Academic.
- Thompson, Paul, and Joanna Bornat. 2017. *The Voice of the Past*. 4th ed. Oxford: Oxford University Press.
- Thomson, Alistair. 2006. 'Anzac Memories: Putting Popular Memory Theory into Practice in Australia (1990)'. In *The Oral History Reader*, edited by Robert Perks and Alistair Thomson, 2nd ed., 244–54. Oxford: Routledge.
- Thomson, Virgil. 2014. 'Masterpieces'. In *Virgil Thomson: Music Chronicles 1940-1954*, edited by Tim Page, 549–54. 258. New York, NY: Library of America.
- Tilbury, John. 2008. *Cornelius Cardew (1936-1981): A Life Unfinished*. Matching Tye, Essex: Copula.

- Tillmann, Lisa M. 2015. *In Solidarity: Friendship, Family, and Activism Beyond Gay and Straight*. New York: Routledge.
- Tillmann-Healy, Lisa M. 2003. 'Friendship as Method'. *Qualitative Inquiry* 9 (5): 729–49.
- Toop, David. 1999. *Exotica: Fabricated Soundscapes in a Real World*. London: Serpent's Tail.
- Turkle, Sherry. 1986. 'Computational Reticence: Why Women Fear the Intimate Machine'. In *Technology and Women's Voices*, by Cheris Kramarae, 41–61. New York: Pergamon Press.
- Varèse, Edgard, and Chou Wen-chung. 1966. 'The Liberation of Sound'. *Perspectives of New Music* 5 (1): 11–19.
- Various artists. 1977. *Women in Electronic Music – 1977: New Music for Electronic & Recorded Media*. LP. New York, NY: Composers Recordings Inc.
- Voegelin, Salomé. 2010. *Listening to Noise and Silence: Towards a Philosophy of Sound Art*. New York and London: Continuum.
- . 2014. *Sonic Possible Worlds: Hearing the Continuum of Sound*. New York and London: Bloomsbury Academic.
- . 2017. 'Sound Words and Sonic Fictions: Writing the Ephemeral'. In *The Routledge Companion to Sounding Art*, edited by Marcel Cobussen, Vincent Meelberg, and Barry Truax, 61–70. New York and Abingdon: Routledge.
- Von Gunden, Heidi. 1983. *The Music of Pauline Oliveros*. Metuchen, N.J., & London: Scarecrow Press, Inc.
- Vorachek, Laura. 2000. "'The Instrument of the Century": The Piano as an Icon of Female Sexuality in the Nineteenth Century'. *George Eliot – George Henry Lewes Studies*, no. 38/39: 26–43.
- Walshe, Jennifer, ed. 2015. *Historical Documents of the Irish Avant-Garde*. Aisteach Foundation, Dublin; Arts Council England.
- Warburton, Dan. 2005. 'Into the Labyrinth'. *The Wire*, October 2005.
- . 2010. 'Éliane Radigue: Invisible Jukebox'. *The Wire*, February 2010.
- Waschbüsch, Viviane. 2015. 'The Influence of Tibetan Buddhism in the Work of Éliane Radigue'. In *Proceedings of the Electroacoustic Music Studies Network Conference*. Sheffield. www.ems-network.org.

- Watkins, Rachel J. 2012. 'Biohistorical Narratives of Racial Difference in the American Negro: Notes toward a Nuanced History of American Physical Anthropology'. *Current Anthropology* 53 (S5): S196–209.
- Winnicott, D.W. 1965a. 'Communicating and Not Communicating Leading to a Study of Certain Opposites (1963)'. In *The Maturation Processes and the Facilitating Environment: Studies in the Theory of Emotional Development*, 179–92. London: Hogarth Press and the Institute of Psycho-Analysis.
- . 1965b. 'Ego Distortion in Terms of True and False Self'. In *The Maturation Processes and the Facilitating Environment: Studies in the Theory of Emotional Development*, 139–52. London: Hogarth Press and the Institute of Psycho-Analysis.
- . 1965c. 'Psychiatric Disorder in Terms of Infantile Maturation Processes (1963)'. In *The Maturation Processes and the Facilitating Environment*, 230–41. London: Hogarth Press and the Institute of Psycho-Analysis.
- . 1992. 'Transitional Objects and Transitional Phenomena'. In *Through Paediatrics to Psychoanalysis: Collected Papers*, 2nd ed., 229–42. London: The Institute of Psycho-Analysis and Karnac Books.
- Wong, Theresa. 2011. *The Unlearning*. CD. New York, NY: Tzadik Records.
- Wood, Elizabeth. 2006. 'Sapphionics'. In *Queering the Pitch: The Gay and Lesbian Musicology*, 2nd ed, 27–66. New York, London: Routledge.
- Woolf, Virginia. 2014. *A Room of One's Own*. London: Collins Classics.
- Wörner, Karl Heinrich. 1976. *Stockhausen: Life and Work*. Berkeley: University of California Press.
- Wright, Elizabeth. 1987. *Psychoanalytic Criticism: Theory in Practice*. 2nd ed. London and New York: Routledge.
- Young, Iris Marion. 1980. 'Throwing like a Girl: A Phenomenology of Feminine Body Comportment Motility and Spatiality'. *Human Studies: A Journal for Philosophy and the Social Sciences* 3 (2): 137–56.
- Yow, Valerie. 2006. "'Do I Like Them Too Much?'" Effects of the Oral History Interview on the Interviewer and Vice-Versa (1997)'. In *The Oral History Reader*, edited by Robert Perks and Alistair Thomson, 2nd ed., 54–72. London and New York: Routledge.
- . 2018. 'What Can Oral Historians Learn from Psychotherapists?' *Oral History* 46 (1): 33–41.

Yow, Valerie Raleigh. 2005. *Recording Oral History: A Guide for the Humanities and Social Sciences*. 2nd ed. Lanham, Boulder, New York, London: Rowman & Littlefield.

Zurbrugg, Nicholas. 2004. *Art, Performance, Media: 31 Interviews*. Minneapolis; London: University of Minnesota Press.

<http://www.loc.gov/catdir/toc/ecip0414/2004001827.html>

