Amplifying Ambience: Rethinking Sound as a Critical Practice in Non-fiction Film-making

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A thesis submitted in partial fulfilment of the requirement of Staffordshire University for the Degree of Doctor of Philosophy

July 2024

Acknowledgements

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Abstract

This practice research project investigates how the acoustic environment, explored through site-sensitive research and sonic methodologies, reshapes creative possibilities in non-fiction film-making. The study challenges language and visual-centric conventions in documentary form by positioning sound as a critical tool for knowledge and artistic exploration. The project includes a written thesis, the experimental short film *Notes on Listening*, soundscape compositions, and a supporting website. Drawing from sound arts, documentary film studies, and sound anthropology, it examines how sonic methods—including critical listening, field recording, and sound design—inform documentary production from preliminary research to post-production. Focused on the acoustic environment of Peckham's Rye Lane, London, the project centres listening as a critical practice and highlights the dynamic relationship between filmmaker and place. Through a series of sonic experiments, the research demonstrates how sound functions as both an epistemic and artistic tool, offering a deeper understanding of place and expanding how documentaries can represent complex, sensory realities.

The findings show that integrating sonic thinking and methods enriches how sound conveys knowledge and perception in documentary film-making. This study contributes by articulating sound as both a critical and creative medium, offering new methods for incorporating sound in non-fiction films and expanding the creative sonic ecosystem of the documentary form.

Common Terms

Below is a compilation of terms used throughout the thesis. Presenting them here provides the reader with a clear understanding of their application and function as a helpful reference.

1. Sonic Ecosystem of Documentary

The open call for this PhD, Scholarship in Film – Practice-based Research, was titled: 'Sonic Landscape of Documentary Form.' My research showed that the methods designed in crafting my film project led to more organic encounters, akin to a 'mycelium system', rather than the ocular landscape theoretical legacy. I applied the term Sonic Ecosystem of Documentary throughout my thesis to emphasise the entangled processes of listening and reciprocal engagement with the environment around us. By recognising the environment as an ecological process encompassing various life forms and temporalities, the term seeks to unveil the multifaceted nature of the 'landscape', encompassing poetic, political, metaphorical, imaginary, and speculative dimensions of the documentary form.

2. Contemporary Documentaries

Refers to their relevance to today's world, innovative approaches to storytelling, and ability to reach and impact a broad audience through various modern platforms.

3. Documentary and Non-Fiction Film

I have intentionally overlapped these two terms throughout the thesis. In summary, while documentaries are a subset of non-fiction films focusing on factual representation, non-fiction films encompass a broader range of styles and approaches that blend factual content with creative storytelling techniques. Generally, when referring to my film project, I applied the term 'non-fiction' to highlight its broader creative elements. For contextual reviews and more specific discussions, I use the term 'documentary' to emphasise its factual basis and adherence to traditional documentary conventions.

4. Sonic Methodologies

Throughout the thesis, the term 'sonic methodologies' draws inspiration from *The Bloomsbury Handbook of Sonic Methodologies*, edited by Bull and Cobussen (2020). To mitigate potential

confusion, despite employing practice research as methodology that applies sonic methods to documentary film-making, I explicitly use the term 'sonic methodology' to acknowledge the importance of this scholarly reference in my research methods.

5. Sonic Thinking

Throughout the thesis, the term draws inspiration from *Sonic Thinking: A Media Philosophical Approach*, edited by Hernzogenrath (2017).

6. Site-Sensitive Research

Refers to the challenges and opportunities of documenting a specific place through long-term, 'on location' engagement. In the context of my research, it examines the ethical considerations, curiosities, and opportunities inherent in such research from an artistic and film-making perspective. This approach explores the productive tensions and dynamic relationships between poetic expression and factual documentation, art and reality, community consent and artistic freedom, and the interplay between historical context, present realities, and future speculations of Peckham's Rye Lane, in London.

Introduction

This PhD practice research, *Amplifying Ambience: Rethinking Sound as a Critical Practice in Non-fiction Film-making*, comprises a written thesis, a non-fiction film accessible through a web link within the thesis, a website, and a series of soundscape compositions.

To achieve the research objectives and address the research questions, I produced a short film project, titled *Notes on Listening,* as a primary research output, which focused on the sonic landscape of documentary form. The film engages in a critical and creative exploration of sonic methodologies (Bull and Cobussen, 2020) and concepts integrated into the film-making process. By doing so, the research investigates how the sonic environment can catalyse non-fiction film-making through long-term, site-sensitive research. This approach holds the potential to extend beyond conventional examinations of the 'audiovisual contract', as proposed by Chion (1994). Therefore, the research challenges the hegemonic dominance of the visual-logocentric and 'classical' narratives in documentary film by critically re-thinking the role of sound as a creative driving force from conception to post-production. In other words, the research is guided by Steven Feld's concept of "acoustemology" (Feld, 1996), which emphasises sound as a way of knowing. This perspective seeks to challenge the traditional dominance of documentary filmmaking's visual and intellectual frameworks. Hence, it aims to broaden the scope of documentary practice to transcend conventional limitations by foregrounding sound as a critical means of knowledge production.

Scope and Exclusions

This research is situated within contemporary creative non-fiction film-making, focusing specifically on practices that employ experimental sensory narrative techniques to evoke place and atmosphere through ambient soundscapes and environmental engagement, rather than through direct narrative cues. However, this does not preclude conventional mainstream documentaries from potentially adopting some of the methods and concepts explored in this project to recalibrate their traditional practices towards a more creative, sensory dimension in non-fiction.

This study, therefore, does not engage with conventional, narrative-driven documentary forms rooted in biographical, interview-based, or explicit storytelling structures. Nor does it analyze the influence of dialogue, voiceover, music, or historical elements in documentary practice. Additionally, it deliberately refrains from exploring the historical development of documentary conventions.

I have examined how these sonic methodologies can be applied to non-fiction film through an interdisciplinary approach reviewing documentary film studies, sound theories, and the practices of Carlyle and Cox (2017), Chion (1994; 2012), Feld (1996; 2015), LaBelle (2010; 2018; 2021), Minh-Ha (2016), Nichols (1994, 2001, 2010), Pooja (2017), Rogers (2020), Voegelin (2019; 2021) and Wright (2017; 2022). This analysis establishes a rigorous connection between conceptual frameworks and practice, thereby defining the approach for the film project.

As such, the short film uncovers innovative methods on film-making practice by articulating how a non-fiction film can be planned, structured, and designed through the integration of sonic thinking and sensibilities (Herzogenrath, 2017; Voegelin, 2019). In addition, other artifacts also emerged from the film research process, such as a series of sonic experiments and a website that will provide access to key elements of the film's process. These will underscore the film project as research in the context of the independent non-fiction film, where finding ways to document its production "plays a role in giving access to processes…an important way of articulating methodologies" (Knudsen, 2018, p.127). Therefore, the research has been accessed and positioned within the modes of production, instead of focusing on forms of reception and spectatorship in film and media studies. Turning attention towards the methods, encounters and "intermedial passages" (Nagib, 2020) in which the film was produced demanded an emphasis on articulating the film-making process as research in itself.

The film undertakes a critical and creative exploration of the "acoustic territory" (LaBelle, 2010) of Rye Lane, the heart of Peckham Town Centre in Southeast London where I live. Listening practices were used as research strategy and method throughout the film: "Listening to the acoustic territory, with its vibrations, frequencies, and cultural references of everyday life in

Peckham's Rye Lane" (Mazza, 2022, IJCMR online). Applied to non-fiction film-making, sonic methodologies such as critical listening, field recording, sound editing, design, and mixing constitute the foundation of my practice research.

As a sound artist whose work focuses on sound practices, discourses, and vocabularies, making an experimental non-fiction film was a daunting challenge and a fascinating opportunity to explore other media languages. To accomplish this, I had to rely on collaboration, which is almost always vital in the filmmaking sector and in practice, even when producing an independent short film. In this thesis, I will discuss critical aspects of many conversations, explorations, and reflections with collaborators, unpacking their significance and impact.

Additionally, my PhD journey began in January 2021 during the ongoing pandemic, adding to the difficulties associated with the documentary film genre. This is primarily because the genre typically relies on direct interactions with subjects, a task that became more challenging under the circumstances. Covid-19 disrupted the possibility of embodied encounters with a large swathe of subject matter. As a result, I had to explore innovative approaches to produce a non-fiction film within the constraints of limited mobility and financial restrictions (no budget). As Brabazon (2022) illuminates, "Through these complexities, the PhDs completed through the pandemic were – and are – distinctive, marked and scarred by an array of social variables, spanning from caring responsibilities, childcare responsibilities, unemployment, homelessness, sickness, grief, and economic insecurity" (p. 147).

Under these conditions, the opportunity to produce an experimental non-fiction film centred around Peckham's Rye Lane, the neighbourhood I have called home for the last few years, appeared as a promising prospect. From the outset, the remarkable intricacy and depth of the social and cultural dynamics within the locality, which resonate in its acoustic territory, made it an ideal setting to apply and experiment with the methodology I designed. Secondly, being a resident of Peckham allowed me to promptly initiate the practical aspects of my research, fostering a meaningful and deeply experiential connection with the place. Peckham's Rye Lane served as a promising 'location' (fieldwork) for applying my practice research methods, facilitating the exploration of research inquiries into sound, place, and non-fiction film-making.

While terms like politics, decolonization, and the colonial gaze appear in this research, they are not its primary focus. Instead, they are considered only in relation to the central inquiry.

Aim and Objectives of the Investigation

This research aims to develop innovative methods for integrating sonic thinking and practices into creative documentaries. Drawing on my experience as a sound artist and sound designer, it focuses on sensory narrative approaches that engage sound and place as experimental forms, transcending conventional, logocentric narrative structures. By exploring the creative potential of sonic methodologies, the study seeks to offer new insights into how the acoustic environment can be critically articulated—from site-sensitive research to creative decisions onscreen.

The main objectives of this research are:

1. **Overview of Research Opportunities in the Role of Sound in Contemporary Non-Fiction Film-making**: To conduct preliminary studies on the conceptual and contextual roles of sound in contemporary documentaries, emphasizing how listening and environmental context have often been overlooked in a genre traditionally associated with objectivity and realism.

2. **Exploring Sonic Thinking and Developing a Research Underpinned Practice:** To develop a practice, underpinned by the research methodology applied in this thesis and grounded in the integration of sonic thinking and creative methods for non-fiction film-making. This objective focuses on how creative approaches can redefine sound and place as artistic mediums within experimental documentary forms. In the thesis, this will be called a creative methodology or a creative practice.

3. **Applying Sonic Methods to Non-Fiction Film-making**: To experiment with listening practices and field recording in film-making through a series of sonic works. This objective will focus on the perceptual and critical impacts of representing sound and

place as a way of knowing. It will highlight their roles as catalysts for advancing documentary research and informing subsequent film production.

4. **Reflecting and Analyzing the Implications**: To create a short film that reimagines the articulation of place and sound, integrating insights from site-sensitive research into sensory-driven narrative structures. This film will serve as both a creative outcome and a reflective evaluation of sonic methodologies, emphasizing the creative and conceptual practices of listening in non-fiction film-making.

Primary Research Questions

How can the agency of the acoustic environment, investigated through site-sensitive research and sonic methodologies, rearticulate sonic thinking and sensibilities in non-fiction film-making? In what ways does this approach challenge the dominance of language and visual-centric tendencies within documentary form?

Rationale of Inquiry

Documentaries have long been used for framing and disseminating knowledge about different subject matters. They have historically emphasised the visual representation of events and situations through the 'voice' which has a perceived responsibility to authenticity. This has become a well-known territory of controversy. For Bill Nichols, 'voice' in a documentary film is its way to communicate with its spectators through the body of the film. Editing, juxtaposition of images and sound, music, lighting, composition, silence, and speech are all structured mediations that are considered strategies to externalize evidence. Thus, he argues that the concept of documentary or any story about the world cannot be sustained without evidence. "It means facts and events exist, but their conversion into evidence depends on the analytical powers of the interpreter, be they a historian or a filmmaker" (Nichols, 2013, p.34).

According to Nichols, the point here is that documentary is constructed by questioning facts and events and generating argumentative discourse to answer questions. In answer to the questions, the documentary's voice provides evidence through the persuasive rhetorical position of the filmmaker, and this evidence is firmly supported by visual representation. A documentary film not only promotes and validates its subject matter with certain voices, "but it also chooses what to exclude when structuring their material" (Munro, 2019, p.5). In a documentary, when speaking is emphasised, hearing focused on semantics is demanded, and historical concepts of visual representation often support it. According to Minh-Ha (2016), ethnographic documentary's gaze has been historically influenced by the cultural perspective of the Global North. In other words, a perspective that requires the world to be viewed from a distance and be represented using supposedly objective, truthful persuasion or affective distance, and thus it limits our capability to understand the perspectives of the world or explore different aspects within ourselves.

Sound, with its "omnidirectional capacity" (Augoyard and Torgue, 2006), can potentially disorient dominant gazes and voices in a generative process of listening. It offers alternative perspectives from and beyond those of visual representation: "Sound enters, bends, curves, envelopes, obfuscates, consumes, stimulates, and generally evades easy holistic comprehension" (English, 2017, p.128). By placing ourselves in the world, we can simultaneously hear all the sounds around us. Different information is constantly being communicated at the same time. This diffuse way of perceiving the world can offer the opportunity to reframe traditional documentary practices, which have consistently been supported by the supposed objectivity of knowledge transmission in the documentary. If this objective assurance of the documentary's voice is left behind, we enter a domain characterized by profound unpredictability, subject to various interpretations throughout history (Voegelin, 2019).

Therefore, this research is grounded in the perspective of a sound artist and sound designer venturing into film-making for the first time as a director/producer. My background in sonic art has focused on projects that foreground listening experiences. This practice is rooted in sonic thinking, sensibilities, and discourse, providing methodological and epistemological tools for

approaching non-fiction film-making. By drawing on interdisciplinary principles from sound art, film sound, and documentary studies, this research explores new approaches to engage with the sonic landscape of experimental documentary form, with the aim of inspiring practical applications in the field.

In this framework, by concentrating on the acoustic environment and the way listening can be mediated in practice research, the aim is not only to "reassess the hierarchical relationship between sound and vision" (Strachan and Leonard, 2015, p.166), but also to propose possible alternative auditory spaces for resonances that attune us to something beyond "the spoken auditory norms that mediate the production and reception of documentary voices" (Rangan, 2017, p.10).

Film Project Introduction: *Notes on Listening*

As its title suggests, *Notes on Listening* is a research film project which investigates the role of listening and environmental sounds, or ambience, in non-fiction film production. Throughout this thesis, I will unpack the main strategies, critical reflections, methods and conceptual frameworks that emerged from exploring the role of sound and place throughout the film-making process.

Film Synopsis:

Notes on Listening embraces a 'sensory documentary' approach, shunning traditional dialogues and commentaries in favour of a sensory experience that captures the essence of cultural practices in transformation. The film centres on Rye Lane in Peckham, an evolving London borough with a rich history and diverse cultural tapestry. Once a rural community of modest size, Peckham has transformed into a vibrant, ethnically diverse urban hub. The film seeks to capture the essence of Peckham's transformation, navigating its intricate layers of cultural identity and the interplay between the local community and the challenges of gentrification.

By immersing the audience in the acoustic territory of Peckham, the film aspires to evoke an "expanded possibility of the real" (Voegelin, 2019), transcending geographical and narrative confines. This cinematic venture aligns with the filmmaker's intimate connection with Peckham, incorporating active engagement with the community and daily listening practices. The resulting film is a testament to sound's power as a transformative medium, bridging the gap between academic inquiry and artistic expression.

Note: The film's soundtrack has been mixed in two formats: Dolby Atmos reduced to Binaural Stereo and 5.1 surround mixing. I recommend using headphones while viewing the film for the optimal experience of the Binaural Stereo version.
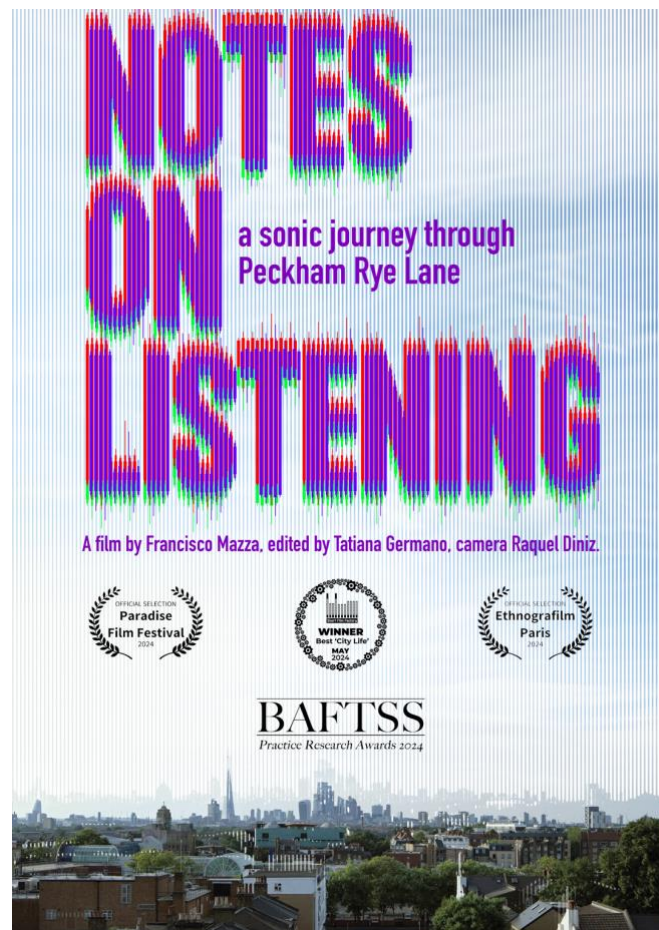
Figure 1: Poster of *Notes on Listening* (2023). Design by Aguirra (2024).

Below is the link to access the film *Notes on Listening*, which is the research's primary outcome.

Note: There are two ways to navigate this thesis. One option is to watch the entire film, *Notes on Listening*, at the outset, then proceed to read the thesis. Upon reaching Chapter 4, watch the film again, following the instructions. Alternatively, the reader may choose to continue reading the thesis and reserve viewing the film for Chapter 4, where specific instructions on which points to focus will be provided. **Please, use headphones for binaural stereo experience.**

Play: https://vimeo.com/857449724/62f15e2944?share=copy

Research Output Contents

This thesis encompasses several key components:

1.   A short non-fiction film with a duration of 14 minutes.

2.   Sonic pieces, including a series of three soundscape compositions titled *(In)Audition 1, 2* and *3*, with a total duration of 20 minutes. These sonic compositions will be available throughout the thesis, with instructions on when to listen to them.

3.   A webpage that showcases significant aspects of the film's research process. This includes the sonic pieces, video interviews with the editor and re-recording mix engineer, the film's teaser and critical elements of the methodology. The intention is to provide a singular space that holds the key aspects of the research as a "creative film practice methodology" (Knudsen, 2018, p. 126). In this sense, the website gives access to processes, articulates methods, and reveals new insights.

The short non-fiction film remains the primary outcome. However, in order to describe and articulate a film project as PhD research, the other outcomes described above, as well as this written thesis, are necessary. The documentation of the creative process thus offers significant evidence of novel perspectives, a feat that the film might not be able to accomplish in isolation

(Knudsen, 2018, p. 127). The structure of these outputs was systematically determined throughout the research journey.

Brief Overview on Methodology and Methods

This section provides a brief overview on the research methodology and methods which will be elaborated upon in Chapter 2, *Methodology and Methods: Listening as Strategy for Non-fiction Film-making*.

This practice drew from the methodology described by Knudsen as "film project as research" (Knudsen, 2018), with a particular emphasis on sonic methods, such as listening practices, field recording and sonic composition as applied to non-fiction film-making. Importantly, such a strategy must place "documentation and critical reflection as the core of the project methodology" (Knudsen, 2018, p.123), establishing the foundation for "rigour in the research inquiry" (Ibid.). Knudsen (2018) explores film-making as a form of academic research, asserting that the process of creating a film generates unique knowledge and insights within the framework of practice-based research. He emphasizes that the experiential and reflective nature of film-making, which includes embodied knowledge through sensory experiences, reflective practice involving critical engagement and adaptation, and collaboration bringing diverse perspectives, can function as a research. The ways to document and articulate these methods together with the final film also serve as an effective means of disseminating research findings to broader audiences, often expanding upon traditional written research.

In this context, my project will document, articulate and reflect on key aspects of the methods and creative experiments to produce the film through practice research. To address the inquiries presented, the project is structured around three proposed stages, as illustrated below.

Table 1: Research Stages

Stage 1 – Contextual review across disciplines, in documentary film studies, sound studies, and anthropology of sound.

Stage 2 – The research methods will be defined through the development of a 'Creative Research Process Diagram,' which will guide a series of creative experiments. These experiments involve applying methods, ideas, and techniques and integrating theory into practice with reflexivity.

Stage 3 – Involves discussing and reflecting on the research outcomes, which include a short non-fiction film, three sonic compositions, and this written thesis addressing the research questions.

Stage 1

During the initial stage of my research, I undertook a contextual review to explore the literature and contemporary practices in documentary film-making and film sound studies. This aimed to articulate how the proposed research contributes to advancing the knowledge of existing practices, whilst understanding the current limitations of the role of sound in non-fiction film-making. Stage 1 culminated in the development of Chapter 1 and 2.

Stage 2

This stage consisted of developing a research process diagram (detailed in Chapter 2) that combines a series of sonic experiments within documentary film-making. These experiments

were divided into Phase 1 and 2, resulting in a range of sonic explorations and compositions called *(In)Audition*, discussed in Chapter 3. This comprises a variety of filming strategies and audio-visual experiments. This creative approach worked as a research catalyst for creative decisions on how the short film was to be produced, exploring the research aim and objectives through practice research.

Stage 3

During this phase, the research outcomes were discussed and reflected upon, encompassing new knowledge and insights explored in Chapters 3, 4, and in the thesis' conclusion. Furthermore, the process, documented and displayed on a website, serves the vital function of 'giving access to processes...an important way of articulating methodologies' (Knudsen, 2018, p.127). Stage 3 unfolded with the presentation of artefacts, the written thesis and the film's website, which showcases the tangible results of the research.

Contribution to Knowledge

The original contribution to knowledge of this thesis is relevant in two spheres:

1. New methods and practices to critically consider sound in creative non-fiction film-making, by integrating sonic thinking and sonic methodologies in the film-making process.

2. A contribution grounded in an interdisciplinary approach integrating sound arts, documentary studies and film sound studies, in order to interrogate the documentary's visual and logocentric forms of production.

The practical element can be framed as an 'interventional process'[1] that captures new sonic subjectivities and materiality. This process requires ongoing reflexivity within the practice (sonic experiments, film-making and writing), dialogue with collaborators and supervisors, and a commitment to sound studies principles. It is also essential to document this interventional process and to express or disseminate the new subjectivities that arise from it, as this can contribute to the broader discourse surrounding the sonic landscape of documentary form. Through this approach, non-fiction film-makers and scholars may be inspired to produce work that not only reflects the complexity of the world around us through film-making, but also offers new insights and perspectives derived from sonic knowledge.

Structure & Content

Crafting this thesis revealed a significant challenge in balancing theory and practice. Throughout, these elements did not just sit side by side; they intertwined and entangled, influencing each other in a continuous loop. The task was to separate them out on paper, whilst making visible their intrinsic connection. I have organized this thesis into four pivotal chapters, bookended by an introduction and conclusion.

Chapter 1*: Reaching the Sonic Limits of the Documentary Frame* undertakes a contextual review to support and demonstrate the necessity of further practice research investigations

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[1] Within the scope of this study, the term 'interventional process' refers to a deliberate and engaged interaction with research findings and knowledge, positioning research elements as part of creative and critical uses of sound in the film-making journey. This dynamic method requires rigorously utilizing proposed methods and ongoing reflection during sonic experiments, film crafting, and written elements. Additionally, it encompasses a continuous dialogue with collaborators and supervisors to integrate research insights into the film project.

(research opportunities) into the sonic ecosystem of documentary form. It is in alignment with the first objective of the research.

Chapter 2: *Methodology and Methods: Listening as Strategy for Non-fiction Film-making* examines sound studies' conceptual frameworks, which drive the creative methodology and its methods, articulating their potential to reshape and rethink the role of sound in non-fiction film-making production. This examination aligns with the second objective of the research.

Chapter 3: *More Than Background* examines the role of sound and site-sensitive research as a critical and creative opportunity for documentary production via a series of sonic compositions. Here, I apply the term 'amplifying ambience' as a critical framework to explore listening and field recording practices as a methodological strategy for a film project. It is in alignment with the third objective of the research.

Chapter 4: *Sonic Screen* This chapter explores how sonic thinking and previous experimentation shaped the film structure, narrative and sound design. Three acts of *Notes on Listening* unpack Peckham's socio-cultural and political context through innovative and contextual sound design. This chapter underscores the importance of interdisciplinary approaches, combining sound arts, anthropology, and film studies to create a short film that critically articulates the acoustic territory into non-fiction film-making.

Disclaimer: Some sections of Chapter 1 (Zawawa, a film short case study) and Chapter 2 (Methodology and Methods) were published in the peer-reviewed International Journal of Creative Media Research (IJCMR) in 2022.

1 Chapter One: Contextual Review - Reaching the Sonic Boundaries of the Documentary Frame

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Chapter Introduction

Interpreting real events through a creative lens has somewhat changed the sonic landscape of contemporary documentary film, where music acts to heighten emotions with direct ethical implications on-screen. However, traditionally, sound is still primarily used solely to support the visual element and establish linguistic meaning via commentary, including voice-over, interview, and audio testimony. Creative field recording, sound design, and mixing techniques have often been overlooked and under-theorised in non-fiction filmmaking. Thus, there is a significant opportunity for documentary film-makers and scholars to focus attention to the creative potential of sound in non-fiction films, and to explore the ways in which sound and site-sensitive research in documentary practice can be articulated critically and creatively from the film's conception to post-production. In other words, how can the embodied experiences of listening drive site-sensitive research within the field of documentary practice, influencing artistic sonic decisions on screen?

Through exploring the poetics and politics of listening beyond visual evidence, music soundtracks and linguistic meaning, this contextual review attempts to support and demonstrate the necessity for further investigation into the sonic landscape of documentary film. It will concentrate on the intricate connection between sound and place, and how site-specific environments can be recorded, mediated, and reconstructed through sonic practice in contemporary non-fiction film production. Thus, documentary studies and practices must include new interdisciplinary sonic perspectives to move away from how documentaries speak, to questions of how they listen to the world (Rangan, 2017, p.10), with perceptual and aesthetic consequences for a film's overall diegesis. This chapter does not aim to cover the history of sound in documentaries. Instead, it examines broader aspects of the sonic landscape in contemporary documentary films, with a shift towards the focus of this study: how sound and

place can be critically and creatively articulated within the context of creative non-fiction film-making.

Documentary and its Blurred Boundaries

Documentary films organise images and sound to construct arguments and meaning. A format which has historically implied an aspiration to realistic representation, which continues to stimulate discussion about the boundaries between fiction and non-fiction.

Bill Nichols (2010) highlights the significant distinctions between documentaries and many fiction genres (adventure, science fiction, horror, drama, etc.) due to different assumptions and objectives, different expectations and methods in which the filmmaker can tell a story, and different kinds of audience receptivity. He suggests that "documentaries address *the* world in which we live rather than *a* world imagined by the filmmaker" (Nichols, 2010, p. introduction. xi). If documentaries inform us about real life situations and experiences, therefore, it has often been portrayed as visible evidence[2], voice exposition, and auditory testimony. André Bazin's notion of "photographic transfer of the reality from the thing to its representation" (Nagib and Mello, 2009, p. xvi in Cox, 2018, p.6), reinforce the rhetoric and persuasive techniques widely used in journalistic and issue-based non-fiction. This frames the history of observational documentary, a genre of ethnographic film which aims to "interact with the everyday captured by the camera in the most non-obtrusive way" (Henley 2007: 57), despite the knowledge of "how technologies that capture visual images or sound distort them" (Hudson, 2020, p.132).

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[2] This term "visual evidence" is also the title of a community of researchers, scholars and practitioners organized by Michael Renov, exploring historical and contemporary documentary practice and nonfiction media culture: https://www.visibleevidence.org

This kind of documentary criticism (Bruzzi, 2000; Nicholls 1991, 1994, 2001, 2010; Minh-ha, 1991; 2011) first began with an examination of the realist claims of documentary film, such as in ethnographic documentaries, as well as the acknowledgement that contemporary documentary practice had begun to blur the line between reality and artistic expression. Thus, considering that documentary is primarily a referential project, John Corner (2018) noted that 'the real' is articulated with ideas of documentary's essential realism, as well as the variety of forms it might take. In a similar vein, Bill Nichols (1994, 2010) constantly raises reflections on questions of meaning and knowledge in contemporary culture with his compelling breakdown of the diverse modes of the documentary; expository, observational, poetic, interactive, reflexive and performative. For the author, the last mode, performative, increases the filmmaker's attention to the affective components of experience from the filmmaker's subjective position. This allows for the exploration of complex problems and viewpoints that confront any claim of objectivity or authority. In this sense, it reinforces the notion that documentaries "not only represent realities but also produce them" (Hudson, 2020).

As a result, exploring the use of expressive cinematic techniques has blurred the boundaries between fiction and non-fiction, bringing creative elements into documentary filmmaking. This makes it necessary to reframe the "aesthetics of a given reality" (Bruzzi, 2006) traditionally associated with the documentary's quest to capture visible evidence. The universal inclination in contemporary documentary filmmaking to aspire for objectivity is part of a debate that has recently lost support, with the now more prevalent acceptance, as noted by Unger (2017, p. 04), "that all forms of narrative filmmaking are intrinsically subjective". As a result, what constitutes a documentary and its hybrid forms, such as docufiction, mockumentary, animated documentary, interactive documentary, essay film, and others, remains an open question among institutions, filmmakers, and spectators alike.

Nevertheless, the remarkable vigour and increasing appeal of non-fiction films in the 21st century have portrayed them as an adaptive, flexible, and collaborative medium for shared experiences (De Michiel & Zimmerman, 2013). Notably, distinctions among various documentary modes cannot be universally defined under a single classification (Nichols, 2010, p. 143). However, instead, it has become imperative to view documentaries as ecosystems

embedded within intricate media landscapes (Nash et al., 2014; Mitchell, 2016). Documentaries, in their complex interplay with various media forms, now serve as catalysts, shaping public discourse and actively participating in the ongoing narrative of our society. It becomes clear that they are not static forms but rather dynamic narratives continually adapting and contributing to how we can think and reshape our interconnected world.

The Sonic Landscape of Documentary Film

The hierarchical relationship between sound and image, reinforced by the Western tradition of visual-centric knowledge, has historically disadvantaged sound and its associated ways of knowing in non-fiction media (Rangan, 2017; Minh-Ha, 1991; Voegelin, 2019). This phenomenon has repercussions in film studies, where deaf cinema and the emphasis on spoken dialogue have relegated audio to a secondary position. Furthermore, the inherent temporality of audio content presents challenges for academic analysis, as it must be paused or excerpted differently than visual material for textbook examination.

However, these power relations go beyond documentary film-making production and permeate all levels of cultural life. Salomé Voegelin articulates this, suggesting that "its aesthetic, social and political realities are hidden by the persuasiveness of a visual point of view" (no date, Listening Across Discipline website). In that direction, our knowledge is much based on supposed objectivity and the apparent certainty provided by objects, dates, data and materiality that we can verify, evidence and reference. This focus on visual transitions and certainties stops us in many ways from seeing the in-between, the invisible, the relational, the processual and the past (Voegelin, 2021; Minh-Ha, 2023). Moreover, this visual-centric approach based on knowledge and re-presentation may indicate why the "discussion of documentary film has often concentrated on visual content, editing, and directorial decision-making (Strachan and Leonard, 2015, p.165).

In fact, as Birtwistle (2017) pointed out, "the body of literature that has emerged since the early 1980s has established the value of sound studies, and sound has been taken seriously" (p.02). There are a number of critical literature about sound design in cinema, including Elizabeth

Weis and John Belton's *Film Sound: Theory and Practice* (1985), Rick Altman's *Sound Theory, Sound Practice* (1992), Michel Chion's *Audio-Vision: Sound on Screen* (1994), David Sonnenschein's *Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema* (2001), Andy Birtwistle's *Cinesonica: Sounding Film and Video* (2017) and Leo Murray's *Sound Design Theory and Practice: Working with Sound* (2019).

However, the academic study of sound in film-making has mostly centred on the role music and sound design (sound effects, ambience, foley) in fiction narrative cinema. As a result, "the function of sound in documentaries has been a relatively under-researched area in academia ... and often lacking the recognition it deserves within the industry" (Whitford, 2021, online). Yet, in the recent decade, therefore, the combination of experimental methods and academic interest in the relevance of sound in non-fiction filmmaking has expanded. As traced by Cox (2018), recent relevant literature can be found in "Gunnar Iversen and Jan Ketil Simonsen's edited collection, *Beyond the Visual: Sounds and Image in Ethnographic and Documentary Film* (2010); *Music and Sound in Documentary Film* (2015), edited by Holly Rogers" (p. 8); and *Soundings: Documentary Film and Listening Experiences,* edited by Goeffrey Cox and John Corner (2018).

Investigations into the sonic "ecosystem of documentary film" (Nash et al., 2014 and Mitchell, 2016), which shape the technological, aesthetic dimensions and "political modes of relation" (Rangan, 2017), are critical areas which are still neglected within the discipline and practice of non-fiction. Most of the recent literature still focuses on the implications of music on the film's soundtrack and the role of 'voice' in the narrative frame around situations and events in non-fiction discourse. As a result, there has been very little research concerning environmental sound in non-fiction film-making in theory and practice. Furthermore, few relevant works of literature have explored the intersections between sound, place and sound design in documentary films, in which the recorded acoustic environment (real-world sounds) can aspire to creative possibilities on the soundtrack (Rogers, 2021; Strachan & Leonard, 2015). However, they have been treated primarily as compositional material for audiovisual relationship studies, supported by the legacies of 'soundscape' studies while overlooking the site-sensitive dynamics specific to particular locations or settings.

The consequence is a contemporary documentary practice that "paradoxically employs sound and its subjects as objects for control and manipulation" (Wright, 2015, p. 45) on the soundtrack "whilst silencing the relational dynamics that make up the field encounter' (Ibid.). In other words, the contemporary sonic framework in documentary film-making neglects the possibility of thinking about sound as a catalyst for research (Cusak, 2016; Feld, 2005). It fails to consider how sonic knowledge can be integrated into film-making process through various site-sensitive and post-production methods mediated via its modes of production.

Vococentrism

Another constraint about sound in documentaries lies in its logocentric tradition rooted in linguistic discourse, which continues to be predominant in contemporary documentaries.

Documentary has long been employed as a method of communication transmitted by its 'voice', a term coined by Bill Nichols's significant essay, *The Voice of Documentary* (1983). However, Nash (2021) has argued that the discussion of voice is complicated by a broad understanding of how it is applied, which requires the 'hearing' to focus on linguistic meaning and the binary relationship of subject and object in the documentary form. We are urged to pay closer attention to "the signification [speech] bears, forgetting the media of voice itself," as argued by Chion (1999) when speaking of film in general.

According to Rangan (2017), these principles, based on a 'system of meaning' embedded firmly within the documentary tradition, also result in the process of auditory discrimination. She argues that they build on the established principles of making a documentary based on the meaning and representation of reality through the immediate discourse of 'a given voice'. This is a problematic issue that objectively describes and interprets the images according to a "scientific-humanistic rationale", and paternalistic notion of those who are not able "to speak for themselves" (Rangan, 2017). Further, it can be argued that documentary should transcend its 'voice' beyond "speaking, telling, arguing and informing" (Munro, 2019), and therefore allowing spaces for perceptual interpretation through other realms of listening. "This touches on the cornerstones of human learning cognition, confirming that language is insufficient and inexact, and visual culture is often limited by its selective frame" (Mazza, 2022, IJCMR online).

Sound Design, Music and Documentary Aesthetics

The argument for authenticity in the context of documentary, "in which certain technologies and styles persuade us to believe in the correspondence between image, rhetoric and reality" (Nichols, 2010, p.xiii), is undermined through the application of music and sound design, as the presence of aural components from beyond the film world inherently call into question the reality of what is being viewed. The risks of supposedly contaminating the documentary record through the addition of an emotionally manipulative dimension (especially music) imposed by the filmmaker's intervention must be critically considered in documentary film (Corner, 2015). Any work from *cinéma vérité*[3] tradition was incredibly sharp in its pursuit of 'impression for authenticity'. In this, they sought to conceal the filmmaker's presence through minimal artistic intervention to create the illusion of a naturalistic sequence of events.

Although the word authenticity "still righteously circulates in the documentary milieu today" (Balsom, 2018, online) it has become a well-known territory of controversy. Minh-Ha (2018) has taken a critical position against ethnographic films and the colonial idea of extracting the essence of the other with arguments of 'authenticity'. For her, "this has to do with power relations in knowledge: authenticity is always defined by the one who consumes the so-called authentic. It's almost always constructed for the other … you can only be authentic if you confine yourself to locking doors and putting up fences" (Minh-Ha, 2018, online). From this perspective, sound is critical in producing a constructive tension between fiction and reality, in which creative sound design and music have become an increasingly significant aspect of non-fiction multimedia. This extends to a range of types of documentaries, from entertainment, travel, on-demand documentary series, web activities and interactive media bringing into question what documentary really is within these new forms and terms of audiovisual culture (Corner, 2015, p.124). While many non-fiction filmmakers attempt to achieve 'realistic'

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[3] 'Cinéma vérité' is the French term for a form of non-fiction film which attempts to "remove all barriers between subject and audience" (Knight, no date, online), utilizing improvisation and minimal equipment intervention. The term was coined by Georges Sadoul who translated Dziga Vertov's work, Kino Pravda, into 'cinéma dans la vie' - Cinema without borders.

representation, which returns us to the historical connections between documentary and immediacy as evidenced in observational and journalistic documentaries, others have been more interested in the creative qualities of the documentary form, where sound is applied in a similar way as in fiction films (Rogers, 2015).

Although documentary film shares cinematic similarities with fiction film by means of production, it "leans towards a completely different aesthetics" (Rogers, 2015) when it comes to handling sound. While the original purpose of sound design in fiction films is to immerse the audience into the cinematic narrative and establish empathy for the characters to create a 'realistic' fictional world, documentary sound requires a different articulation from the fabricated sonorous world of a film's diegesis (Rogers, 2015; Nichols, 2015). The 'evidential' possibilities of accessing sound at the moment, since they are reactive to the embodied experience of a place and the encounters with historical archive materials, provide ethical, aesthetical, and political distinctions from fiction narratives (Nichols, 1994, Corner 2015, Matthews, 2021). Harriet Matthews (2021) expands on the ethical concerns of the mediated use of music in the contemporary social documentary, highlighting essential distinctions between the sub-genre of documentary that seeks to shed light on social issues from other formats more inclined to entertainment demands. However, the limits of creative sonic mediation in non-fiction are often grounded in the historical pathways and disciplines in which the documentary form has been developed, represented by those who share anthropology's principles and objectives regarding the representation of othered cultures.

Low budgets, minimal crews, and handheld cameras are characteristic of ethnographic films centred on fieldwork and directed by ethical dilemmas. When it comes to methodological or theoretical frameworks and the creative sonic dimensions contributing to a film's narrative, 'very few ethnographic or documentary filmmakers have given serious attention to sound' (Boudreault-Fournier, 2021, p. 45). Interestingly, the digital revolution of film-making production, which allowed for greater freedom of movement and filmic editorial choices, in parallel with the emergence of postcolonial studies, posed particular challenges to the tradition

of filming the 'Other'[4]. Nevertheless, the "frank admission of the manipulation of the soundtrack sits rather uncomfortably with the empirical rhetoric not just of observational cinema but with most contemporary modes of ethnographic and documentary-making" (Henley, 2007, p. 57) is still relevant today (in Boudreault-Fournier 2021, p. 45). Henley (2007) acknowledges that, although sound manipulation may not be the most acceptable aesthetic for observational ethnographic cinematography, the aesthetic and sensual realms of sound designed for a documental film may contribute to evoking some "sensory elements of culture" (MacDonald, 2015) and expanding the horizons of ethnographic traditions. In other words, the audience experience can be enhanced by expertly recorded ambient sounds and a multi-track soundscape crafted in post-production. Therefore, soundtracks may enable to establish the cinematic acoustic space to augment the audience's experience while also providing new ways to engage with environment, architecture, aesthetics, and embodied interactions in the filmmaking process (for example, Barbash and Casting-Taylor, 2015; Boudreault-Fournier & Diamanti, 2018).

In this context, the benefits of developing a sonorous world which extends from the "acoustic social place" (Labelle, 2010) to the creative sonic possibilities of the editing process (sound design, foley, ambience, sonic associations, mixing and other), would contribute to audiovisuality as an artistic and experimental medium. This would allow access to historical, socio-political, and environmental site-specific conditions through creative mediation, transcending the mere reaction to on-screen events.

Therefore, given these frameworks, it becomes crucial to emphasise the potential of integrating listening as both a strategic approach and a powerful investigative method within non-fiction media (Cusack, 2017). This involves a comprehensive examination of the intricacies in extending sonic thinking, methodologies, and sensitivities across all stages of non-fiction

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[4] In anthropology, "the Other" refers to the categorization of those perceived as different from the dominant culture, impacting power dynamics and cultural perspectives. "This anthropological other is basically epistemological" (Sarukkai, 1997, p. 1406).

filmmaking, from its inception to the editing phase. In that sense, recognizing sound as a powerful catalyst for research is essential. This perspective is crucial for thoroughly analysing the potential role of sound in creative documentaries. It shifts the focus from merely using sound to enhance visual representation or manipulate aesthetics in the soundtrack to actively catalysing research and creative expression.

Challenging Traditional Form

The fusion of fiction and documentary in cinema has a rich history. Notable instances include post-war Italian cinema in the 1950s, with influential directors like Vittorio de Sica and Pier Paolo Pasolini. Post-revolution Iranian cinema in the 1990s, led by Abbas Kiarostami and Jafar Panahi, also explored this interplay. Contemporary Latin American directors like Lucretia Martel, Eduardo Coutinho and Cao Hamburger, blend time and space in their storytelling. In the United Kingdom, filmmakers and artists like Mike Leigh, William Raban, Ken Loach, Mikhail Karikis, and Steve McQueen challenge cinematic conventions by blurring non-fiction and imagination.

In the same direction, emerging cinematic movements bridge anthropology and art, as explored in Macdonald's *Avant-Doc* (2015). He interviews film-makers adept at merging experimental and documentary approaches. The book's standout example is the final interview with Lucien Castaing-Taylor and Ilisa Barbash of Harvard's Sensory Ethnographic Lab (2006), feeding an ongoing dialogue that redefines contemporary cinema. The Sensory Ethnographic Lab proposes to destabilise the dominance of the visual-logocentric paradigm by paying attention to the sensory dimensions of our world (Howes, 1991; Bull and Back, 2003; Pink, 2015).

A notable example is the documentary *Leviathan* (2012), directed by Castaing Taylor and Verena Paravel, a film about the ecological catastrophe fishing industry set onboard a groundfish boat on the New Bedford, Massachusetts coast. The film places emphasis on the filmmaker's experience, which amplifies the sensorial aspect of the film as an "aesthetically innovative sensorial portrait", as noted by Unger (2017) in his analyses. This approach evokes

what he terms "experiential knowledge, the infusion of sensory experience from both the filmmaker and the viewer" (Unger, p.04), which attempts to create "a new documentary experience" (Castaing-Taylor, 2015) grounded in the subjective and evocative embodied experience of the filmmakers. Consequently, the productive tension between the long-take shots and the shifting spatial-temporal dynamics of sonic textures is not only an immersive invite, but also a materialist proposal of the film's sonic elements rather than a sonic representation (Kara and Thain, 2015). In this way, the film's soundtrack attempts to destabilise any objective points of reference (temporal and spatial) by directing the viewer into the sensorial circumstances surrounding the fishers, filmmakers, and environment through a 'haptic and tactile' (Sobchack, 1992; Marks, 2002; Walker, 2020) audio-visual aesthetic. Thus, amplifying sonic textures through soundscape composition destabilises the sense of objectivity and evidence in favour of subjectivity, poetic realms, and sensorial experience, therefore, also subverting ethnographic documentary tradition.

Some contemporary examples of documentary films which employ the creative use of sound through the lens of a "sensory and aesthetic experience" (Castaing-Taylor, 2015) include *Manufactured Landscapes* (2008), *El Mar La Mar* (2017), *Silence* (2010), *Zawawa: The Sound of Sugar Cane in the Wind* (2017), *The Two Sights* (2019), *Annea Lockdown / A Film About Listening* (2021), *32 Sounds* (2022), amongst many others. What such films have in common is the development of strategies to construct a sonorous world not as a criticism of the visual by prioritising another sensory mode, but as a method in which audiovisuality is recalibrated in order to generate listening spaces in between linguistic meaning (voice) and the indexicality of images. They invite the audience to become involved with the social subject through "an active sensorial engagement" (Voegelin, 2006), and so challenge the formalism of documentary tradition, which requires, in turn, the "sensory reorientation of film theory" (Kara and Thain, 2015).

However, how do these filmmakers articulate sound in their film projects and research endeavours? What are the creative strategies, techniques and methods they employ through filmmaking? Has sonic thinking been expanded critically from film conception to creative decisions in post-production?

These questions serve as the driving force behind my research. While it is true that certain contemporary documentary films have considered sound creatively, these inquiries highlight the need to redirect non-fiction sound studies towards an interdisciplinary approach in order to understand its methods and creative approaches better. Incorporating sound arts, sonic anthropology, contemporary sound studies, and their respective methodologies becomes imperative in this context. This interdisciplinary approach aims to foster the expansion of novel conceptual and practical avenues for engaging with non-fiction sound, surpassing the limitations of conventional film sound studies in documentaries.

Narrative and the Sensory Experience

In cinema, the filmmaker's and the audience's perception is engaged by a simultaneous, multi-level configuration process "that transports someone or something from one place or state to another" (Ricoeur, 1984, p. 53). The camera, the projection space, the film body and all technological apparatus and creative approaches mediate, if not transform, the filmmaker's deliberate conception. Thus, the film might be understood as creating the possibility of "convergence of both filmmaker's and spectator's perception" (Bennington and Gay, 2000, online) via articulating technology or other mediated cultural aspects such as linguistic meaning and narrative structures. Therefore, "…the filmmaker and spectator are brought into indirect perceptual engagement with each other, and into direct engagement with a world that is their mutual intentional object" (Sobchack, 1992, p.173). Sobchack (1992) offers an alternative perspective of cinema as a dialogue between the filmmaker and the audience by embracing Merleau-Ponty's phenomenology.

This critical turn to the embodied experience reflects a broader shift in the arts towards studies of the body and embodiment, where "bodies have become a trendy focus of attention" (Walker, 2020). The study of phenomenology, a subfield of philosophy, concentrates primarily on how one perceives and experiences the world around us. Consequently, perception is strengthened by and via the body and the incorporated synaesthesia and cultural resources we engage in perceiving. Sobchack (2020) frames how phenomenology is relevant and apt for film analyses and proposes embodiment as "a radically material condition of the human being" inevitable

integrating "the body and consciousness, objectivity and subjectivity, in an irreducible ensemble" (pg. 4). Similarly, Laura Marks (2002) proposed the notion of 'haptic criticism' as a tactile connection between film and audience.

Despite the emergence of embodied film theory, the sensory approach of cinema spectatorship must be extended to film sound, according to Walker (2020). The author argues that "a significant proportion of cinema and corporeality study has neglected, overlooked, or understated the embodied experience of film sound" (p.119). Drawing from sensory and embodied experience theories of cinema, the author seeks to disclose novel insights to explore the embodied experience of a film's soundtrack through a plurality of narratives, which involve the 'materiality of sound' converged during and beyond the cinematic encounter. Her argument and studies reinforce that "textual analyses are insufficient for investigating film sound" (Walker, 2020, p. 136). In other words, it reveals, both conceptually and materially, the critical relevance of embodiment in cinematic experience and film studies (Ibid.). Therefore, the affective realms of sound and its material vibrations and frequencies are channelled, received and incorporated within the body, suggesting that an embodied theory of film sound is necessary for scholarship.

However, according to Nagib (2020), it is incomplete and insufficient to suggest that bodies respond to a cinema experience without acknowledging the deeply complex ways this is produced. The 'centrality of mediation' (Ricouer, 1984; Casebier, 1991; Everett, 1998) has a history in film studies where scholarship on cinema has placed emphasis on spectatorial reception via the film experience (Nagib, 2020). She argues that the historical legacies of film studies remain concentrated on the 'modes of reception' that exclude any possible 'passages' to historical and political realities; only possible via the complex processes and encounters channelled by the film's 'modes of production' (Ibid.). For her, it is apparent that, regardless of their mediation process, audio-visual media may affect audiences through emotional and physical responses even when the actual reality is not present. For example, the 'new' immersive media environments, such as virtual and expanded reality systems, or computer-generated images are particularly designed to augment "reality effects" (Nagib, 2020). In doing so, "reality effects can only be effects and not actual reality" (Ibid., p.28). As a result, instead

of focusing on forms of reception and spectatorship, Nagib suggests that cinematic 'reality' should be accessed and positioned in the 'modes of production'. In other words, she advocates that the broad notion of 'world cinema' might include a more particular concept of 'realist cinema', which she claims is only possible through the 'intermedial passages' of film-making production (Nagib, 2020).

Turning attention to the methods, encounters and 'intermedial passages' (Nagib, 2020) in which films are produced demands an emphasis on the embodied encounter as a place to access social-political contexts. In this direction, one may argue that this conceptual framework also encourages us to shift the focus to the phenomenological aspects of the sonic event and sensibilities. Here, as Voegelin (2010) articulates, "sound, in conjunction with a perceiver, invents, produces, and generates meaning" (p.13) which offers 'intermedial passages' (Nagib, 2020) to socio-political and environmental realms. The way sound connects with various forms of communication and understanding, as described as 'associative' by LaBelle (2010), is not isolated from the tangible aspects of sound, like its vibrations and physical nature (Bennett, 2010; Goodman, 2011). Instead, it stimulates and emphasises the sensory possibility, which can encompass all aspects of a film project, from its conception (by the film-maker) to its reception (by the audience).

Sound, Place, and the Politics of Listening

The creative possibilities of a film's sound space, meaning "how a given 'sonic environment' is represented on-screen" (Strachan and Leonard, 2015), can be examined by investigating moments when the soundtrack seems to be more imaginative than the captured image. This is what Rogers (2021) terms "sonic elongation", a creative construction of audio-visual acoustic perception through the movement from locational sound recording to sonic composition, and from hearing to listening "without completely shattering the boundaries of many documentary codes" (p. 5). It occurs when real-world sounds that are synchronized with the visual gradually escape from their visual referents, assuming sonic compositional structure and texture and allowing it to assist in the re-imagining of the sensory and poetic dimensions of the dialogue between listening and viewing (Rogers, 2015). The author also reflects on the paradoxical tale

of a profilmic reality, arguing that a fiction film soundtrack created in post-production provides a more realistic cinematic experience than a documentary sound in its "purest form" (with no sound design treatment) (ibid.). However, "when sonic elongation arises, it interrogates our listening behaviour further and initiates a process of creative audition" (pg. 37).

Such moments relate to creative sound design processes when a real-world sound or sound effect is heightened on post-production to provoke an emotional response and engagement on-screen. This conceptual approach to film sound design is constructed in ways similar to Pierre Schaeffer's electroacoustic and musique concrete, where sound is treated as an object for manipulation, aesthetic proposal, detached from its contextual reference. However, Rogers (2021) reminds us that "the sonically-elongated documentary soundtrack does not lose touch with its referent — it does not encourage reduced listening" (p.38). In this sense, the ways of listening proposed by sonic elongation initiate a non-conventional dynamic in the audio-visual relationship, expanding the notion of an audio-visual fusion. This is consequently supported by Chion's theories about various levels of audio-visual listening, such as "casual listening" – when we try to locate the sonic source on-screen; "semantic listening" – which refers to language and interpretation of a message; and "reduced listening" (Chion, 2012) – similar to Schaeffer's musique concrète discourse, which refers to a mode of attentive listening that focuses on the intrinsic qualities of sound itself, detached from its source or context. It involves a concentrated exploration of the sound's timbre, texture, and dynamics, aiming to appreciate its pure sonic characteristics independent of its original meaning. These three listening modes and the concept of "sonic elongation" (Rogers, 2021) will be discussed in further depth in Chapter 4.

Mark Peter Wright (2017), in his article for the Journal of *Sonic Studies* titled *Post-Natural Sound Arts*, reinforces a critical perspective on Schafer's legacy of acoustic ecology and Schaeffer's reduced listening compositions. This reminds us that "sound recording and its creative representations must not be deemed inconsequential" (Wright, 2017, online), which means, used only for compositional-aesthetics purposes. However, instead, it should be considered in association or "directly engaged with issues of ethics, power, and agency" (Ibid.) and their social-political and environmental implications. Although a documentary's production

may be aesthetically creative and find support in the cinematic world of feature fiction, "the dynamics of understanding something to specific realities finally take priority" (Corner, 2015, p. 135) on-screen. From this perspective, it is critical to examine the creative and intricate relationship between sound, place, and documentary filmmaking and how the environmental sounds can be channelled, processed, and reconstructed through non-fiction narrative and form.

If we think of documentary films as a media for exploring the world's social, cultural, and historical aspects through a filmmaker's personal views, technology, and artistic mediation, this idea resonates with Voegelin's (2014) perspective on listening. She argues that listening "augments, expands and critically evaluates how we see the world and how we arrange ourselves to live in it" (online). In other words, as Oliveros (2015) puts it, "to listen is to give attention to what is perceived acoustically and psychologically" (p. xxii). It also refers to the active modes of listening through which sound takes on meaning; it is a cultural practice, different according to specificities of time and place, contingent on context, and it requires 'positionality' (Robinson, 2020) in relation to social power dynamics. This means "there is a politics as well as a poetics of listening" (Lacey, 2020).

The concept of acoustemology as developed by the anthropologist and ethnomusicologist Steven Feld, searches for sensitive ways in which environmental, cultural and historical factors shape sounds as "central to making sense, to knowing, to experiential truth" (Feld, 96:97). In Chapter 2, I will explore Feld's concept of acoustemology. Peter Cusak (2016), in his long-term research in *Field Recording as Sonic Journalism*, amplifies the advantages of sound for investigators as "a very potent trigger for research". He suggests that the experience of location through listening, and the possibility to think about the sonic sensibilities of a space that this offers, "can reveal acoustic strands that flow through narratives" (Cusak, 2016, online). Addressing these concerns can point to new paths for non-fiction film production and provide a flexible and creative framework for engaging with sonic sensibilities and the socio-political dimensions of sound (Feld, 2015; LaBelle, 2015; Voegelin, 2019; Wright, 2017, 2022).

As a result, documentary filmmakers and scholars have a unique opportunity to concentrate more extensively on the dynamic relationship between sound and place and its socio-cultural

implications. This possibility offers the combined forms of art, aesthetic experience and documentation to negotiate the object and the subject of recording by expanding "sonic thinking" (Herzogenrath, 2018; Feld, 2021; Voegelin, 2021) from location (site) to post-production (audiovisuality). In this context, sound can be perceived as an intrinsic component of non-fiction filmmaking, which integrates the relational, the invisible, and sometimes the inaudible into the process. Therefore, these ways of thinking about sound can provide a different viewpoint and perhaps open up new creative avenues for potential sonic interpretations of the world (Voegelin, 2021) in non-fiction film-making. Moving away from concerns of representation, identity, and meaning and instead focusing on the material, embodied, and sensuous aspects, enables a more innovative use of sound in documentaries. This shift allows for the exploration of sensory dimensions and aesthetics while still acknowledging the importance of the sound's sociocultural context and reference.

Nevertheless, it requires a comprehensive approach in articulating site-specific listening practices as method for documentary production. This approach must transcend the conventional 'audio-visual contract' (Chion, 1996), encompassing the embodied experiences of on-site listening. This shift highlights the significance of sensory perceptions and site sensitivity as integral components of the filmmaking process.

To better articulate acts of listening as a catalyst force for non-fiction film-making, below is a brief case study of the film 'Zawawa: The Sound of the Sugar Cane in the Wind (2017),' directed by Angus Carlyle and Rupert Cox. This case study serves as the contextual backdrop for my research, positioned within experimental non-fiction film-making and its acoustic connection with places. The central inquiry revolves around learning from both individual and collective listening experiences and utilizing them as a creative force driving the research process. The following analysis thoroughly examines listening as a strategy for research in non-fiction film production and contributes to developing the context of my practice research framework.

Listening as Strategy: A Briefcase-Study of Zawawa

What does it mean to learn from individual and collective listening experiences and use this as a creative catalyst in a documentary's research process?

Researching archives, listening to testimonies, experiencing and recording the landscape, were methods applied by the anthropologist Rupert Cox, acoustic scientist Kozo Hiramatsu, and sound artist Angus Carlyle on their collaborative project, Zawawa. Their long-term project focuses on the health, environmental, and social concerns imposed by US military aircraft noise in Okinawa and the traumatic collective memories of wartime (Visual Research Network, online). The Pacific Island, destroyed by the final World War II combat, was occupied by the US for 27 years, resulting in an extensive military presence and transiting aircraft, which persists today.

Juxtaposing perspectives from ethnography, sound arts and filmmaking, the team's research has developed in several directions. This has also resulted in the film *Zawawa: The Sound of Sugar Cane in the Wind*, a 50-minute experimental film blurring the boundaries between art and documentary. The film centres on aesthetics and the politics of listening. As opposed to conventional documentary featuring subjects of war to merely expose trauma on-screen - via testimonies, historical archives, and 'emotional heightening' from music - in *Zawawa*, there is no use of voice-over, dialogue or normative film sound effects paired with extra-diegetic music. Instead, the 'ears witnesses'[5] of the US occupation of the island are 'solidified as text' and sensorily expanded through environmental sounds as the creative process. Furthermore, it

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[5] The term "ear witness" is used to emphasise the importance of audio evidence and the role it can play in investigations. Forensic Architecture, a research agency that investigates human rights abuses and acts of violence through architectural analysis, is an example of how to employ various techniques to utilise audio recordings as a means of gathering, such as synchronising audio recordings with other forms of evidence and identifying specific sounds like weapons or ambient noise. Additionally, they leverage 'ear-witness' testimony, which refers to individuals who have heard relevant sounds or conversations, and 'echo profiling,' a method used to reconstruct events and spaces through meticulous sound analysis.

experimentally combines sonic and visual elements beyond cinematic audio-visual "synchresis's normative"[6] (Chion, 1994), in which synchronized and non-synchronized sounds and images portray the individual and collective memories of Okinawans living in this conflicted territory.

Zawawa: The Sound of Sugar Cane in the Wind does not intend to objectively recreate or represent aspects of Okinawans' collective trauma but instead investigates the relationship between sound, place and memory oscillating between the past, present and future of an experienced conflicted territory. As Rupert Cox suggests, it also explores how scientific analyses have historically ignored these subjective aspects, arguing that "[t]his is because military sound cannot be contained by the borders of the military bases and flight paths it originates from but like all sound moves and settles in the bodies of listeners as the sense of a place over time" (Cox, 2021). This interplay of traumatic memories with landscape configurations during the conflict may affect the place and its inhabitants even when sounds are not physically present. In other words, the role of sound in the individual peritraumatic distress is intertwined with its territorial circumstances through "a violence of low frequencies that migrates beyond the outbounds and instantaneity of a sonic event while contaminating the proximate environment" (Safa, 2022, p. 03).

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[6] Synchresis is an acronym formed by juxtaposing the terms synchronism and synthesis. The term was coined by the sound theorist Michel Chion (1994) as the "mental fusion between a sound and a visual when these occur at exactly the same time" (Chion, 1994, p. 62). See Chion, Michel. (1994). Audio-Vision: sound on screen. Columbia University Press, New York.

Figure 2: Excerpt from *Zawawa* (2017). Directed by Rupert Cox and Angus Carlyle. Japan / UK. Link: https://vimeo.com/690504575

In this film, collective memories reverberate through oral testimonies, combining to form a vibratory landscape that can only be potentially sensed through aspects of ethnography and art. Amplifying sonic textures as testimonial material via an embodied engagement with the landscape and the aesthetic possibilities of non-fiction film offers a tactile component for accessing shared memories. In other words, the emphasis of the sensorial aspects of ethnography, as Scott MacDonald puts it, "can offer its audience a sensory experience that reflects on the actual experience of others (including the filmmakers themselves) as occurred in a special place during a specific time" (American 315, in Unger, 2017, p. 07).

Obviously, there are a variety of innovative ways and concepts for recording or editing sound to create a believable spatial world in media, with a long history in film sounds (Chattopadhyay, 2017, p. 02). Or, when the ambient sounds in documentary films are treated creatively to such an extent that "they dissolve into musical timbres and structures" without losing connection to their origin in the image (Rogers, 2020). However, for *Zawawa*, listening was adopted as a

holistic and primary methodological approach, functioning as a research catalyst from the project's conception to the creative decisions on the film's production. Hiramatsu, Cox and Carlyle's fieldwork was "devoted to learning from the islanders' listening experiences and using these to direct their sound recording, filming, subsequent interviews" (Archive Books website) with artistic mediation. They were interested in how sound remains in place not only via its vibratory manifestation in the air, but also through memory, resonance, and reverberation. 'Zawawa' is "an Okinawan word meaning the sound of sugar cane rustling in the wind" (Carlyle, 2021, online). This film is about the multiple consequences of sound, "heard by inhabitants of the island of Okinawa as a felt memory of the Pacific war and its post-war aftermath" (VRN website).

Carlyle (2021) devised a methodology of 'civic listening' as a way to connect heard histories - through places that evoke the sounds of remembered pasts; archives that can be listened to for oral testimonies; or the reverberations of a present historical moment. According to him, critical and conceptual aspects of this method came from the idea of 'rough listening' - a way to divert from the norms of 'high-resolution sound' inspired by cinematic and musical contexts. This runs in parallel to Hito Steyerl's (2009) concept of the 'poor image', which is in direct contrast with the "brilliant and impressive, more mimetic and magic, scarier and more seductive" capacities of high resolution. Carlyle sidesteps the 'brilliant and impressive' aspects of sound design, working with rougher, poorer textures and at smaller scales that reveal media rather than vanishing them. This shifts virtuosity in solidarity with the aural diversities that echo our "vibratory individualities" (Carlyle, 2021). In this form of aural portrait, listening requires affective and open attention to the specificities of individual memories, where language is unable to communicate the ignored and unheard, exposing the impossibility of accessing pain, damage and trauma via linguistic means alone.

This combination of sonic methods of investigation such as listening, field recording, and sound design combined with creative writing (autoethnography) and filmmaking, enables creative translations from embodied inquiries of fieldwork to artistic possibilities. "Doing and thinking, experimenting and theorising, are dynamic practices that play a constitutive role in our relation to the world through the sonic" (Bull and Cobussen, 2020, intro). As a result, sonic

methodologies act as complementary and diffusive ways of knowing, expanding visual frameworks into a place where linguistic meaning is unable to reach, which Unger (2017) refers to as 'experiential knowledge,' or knowledge based on affective experience.

Our neighbourhood's narrow streets let the city settle into a quiet night: subdued insect pulses, footfalls keeping pace with the rub of trousers, the urgent clicks of a dog's nails, a lighter's scrape, doors complaining about their slide along tight frames, a broom pushing grit over pavement, food prepared by wood, china and metal, children's laughter, washing twisting against lines, the skitter of dry leaves, my mouth garbling an evening's greeting. Many times and many places have found me trying to set down just such an atmosphere as this, trying to record it. I have never come close to close.

Zawawa 2017

Figure 3: Carlyle, A. (2021). Listening Diary from *Zawawa* presented at *Listening as an art,* Epas' online event.

Chapter Conclusion

As demonstrated, documentary film-making practice has historically impoverished the creative role of sound to limit the documentary's frame to its modes of representation, rooted in linguistic meaning, notions of authenticity, and ethnographic traditions of representing 'others'. On a different spectrum, sound has been treated as an object for emotional 'manipulation' and entertainment, aestheticized in a similar way as fiction films, with direct ethical implications for the contemporary non-fiction form.

Thus, I have defined my research as a sonic space 'in between' visual evidence, linguistic meaning, and music. This exploration is centred on investigating how ambient sounds can catalyse components within the film research process, ultimately recalibrating perceptual,

creative and political possibilities onscreen. The transition from concerns of representation, identity, and meaning to the material, embodied and sensuous, allows for more innovative use of sound in non-fiction film production. This shift allows for the exploration of sensory dimensions and aesthetics while still acknowledging the importance of the sound's sociocultural context and reference. Nevertheless, while numerous non-fiction film-makers have experimented with the creative possibilities of sound in their narratives, whether engaging the senses or not, there remains a need for a more comprehensive understanding to fully incorporate listening and sonic methods as a strategic approach in documentary production. This approach extends beyond the conventional 'audio-visual contract' studies (Chion, 1996) and encompasses a 'phenomenological approach' (Huvenne, 2022) of exploring sound as a critical practice in non-fiction film-making.

The exploration of 'listening as strategy' through the case study of *Zawawa* has unveiled the intertwined capabilities of exploring sound, place and memory. Here, listening serves not only as a catalyst for research, delving into the collective aftermath of memories and traumas within a post-war region, but also as a method for articulating the research into creative possibilities within the documentary form. Through the 'amplification' of ambient sounds as evidential material onscreen, acts of listening work as a method for fostering both understanding and artistic expression. By incorporating the perspectives of 'ear witnesses' from Okinawa's intricate history, *Zawawa* has challenged traditional documentary conventions, offering fresh insights into how the auditory landscape can become intertwined with the conflicted territory and be portrayed on screen. It has bypassed conventional voice-overs, dialogues, and standard sound effects, opting instead for a rich tapestry of environmental sounds as testimonial material. In doing so, it has expanded the collective memory of a conflicted territory, transcending the constraints of linguistic representation. In other words, *Zawawa* is a compelling testament to the intricate interplay of sound and territory, providing a sensorial audiovisual journey into shared memories that transcend linguistic barriers and visual representation in non-fiction films.

I have identified the following core objectives and motivations guiding my research:

1.   To research and reflect on sonic practices and critical frameworks of sound studies as a catalyst for both research and creative avenues within the art of non-fiction film-making. The overarching goal is to re-think the documentary's logo-visual-centric traditions of knowledge and meaning.

2.   To explore, via a series of experimental works, sonic methodologies such as listening practices, field recording, soundscape composition and sound design as strategies to present new forms and ways of implementing sonic thinking to the domain of non-fiction film-making.

3.   To re-imagine what constitutes the 'acoustic territory' when articulated critically and creatively into the film's sound design. To consider ambient sounds as a critical framework for engaging politics of listening within the film project (outcome).

In order to achieve the three objectives above, I will focus on the process of producing a short non-fiction film as research by using sonic methods as a catalyst force during this process. In addition, they demand interdisciplinary perspectives to be implemented, crossing contemporary sound arts practice and discourse, film sound and documentary studies, which will be further explored in the next chapter.

2 Chapter Two: Methodology and Methods - Listening as Strategy for Non-fiction Film-making

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Chapter Introduction

In Chapter 1, I began to outline the research rationale of my inquiry. I presented a contextual review investigating sound's impoverished role in documentary film, exploring conceptual and contextual understandings of using sound critically and creatively in a genre traditionally associated with objectivity and realism. In this, I demonstrated how environmental sound in non-fiction film-making has been underexplored in both theory and practice. This relationship between sound and place has been concentrated primarily on experimental documentaries focusing on audiovisual relationship studies, generally supported by the legacies of musique concrète and 'soundscape' studies (Schafer, 1977; Rogers, 2021). This contemporary documentary practice employs sound and subjectivity as material extracted from its referential context and further processed on the soundtrack "whilst silencing the relational dynamics that make up the field encounter" (Wright, 2015, p.8). In other words, it employs sound whilst neglecting any possibility of thinking about it as a research catalyst to be articulated within the creative process from location to the screen.

In order to clearly articulate the methodology, methods, and interdisciplinary nature of this research, which integrates disciplines such as sound arts, sonic anthropology, and film sound studies in the context of non-fiction filmmaking, this chapter will establish the foundation for a series of practice research experiments. It is in alignment with the second objective of my research: to develop a creative practice grounded in the creative possibilities of integrating sonic thinking and methods into non-fiction film-making. This objective focuses on how these approaches can redefine sound and place as artistic mediums within experimental documentary forms. In this trajectory, I am embracing a research process that employs "sonic

methodologies" (Bull and Cobussen, 2020) within the framework of "film project as research" (Knudsen, 2018) as part of a practice methodology. At the heart of this approach and the development of a 'creative research diagram' lies the production of a short non-fiction film titled *'Notes on Listening'*. Chapters 3 and 4 will further explore the practice-reflective aspects of the research.

Centering on sonic methodologies as a driving force in non-fiction film production, this research is directly relevant to documentary practices that embrace the aesthetic, affective, and cultural possibilities of sound. It highlights the contemporary relevance of creative non-fiction film-making, utilizing sensory narrative approaches to evoke place and atmosphere through ambient soundscapes, rather than relying on conventional narrative cues. This shift towards the phenomenological aspects of sound has inspired me to reconsider the relationship between sound and place in contemporary non-fiction media and their creative possibilities. As Huvenne (2022) notes, incorporating embodied listening in film sound studies places the body at the centre of the cinematic experience. Embodied encounters within social-political contexts in filmmaking (Nagib, 2020) will allow for creative readings of conceptual frameworks from sound practices and studies (Feld, 2015; LaBelle, 2010; Voegelin, 2019, Wright, 2022). Therefore, the research moves beyond the exhausted audiovisual relationship studies. The theoretical framework from which these processes might occur will be established in this Chapter to address these emerging acts of listening as a strategy in non-fiction film-making.

The first part of this chapter will define creative methodology and methods designed to develop a short non-fiction film as research outcome. The second part will focus on the theoretical framing of sound studies and practices and their potential to shape documentary production. Therefore, this chapter establishes the methodology, methods, and conceptual groundwork for my practice research at the intersection of sound studies and documentary practice. It underscores the contextual significance of listening as a critical strategy for exploring the roles of sound and place in creative non-fiction film-making.

Practice Research

Practice research is constantly gaining traction in creative arts yet remains challenging to define it due to its diverse applications across various disciplines. Practice research is referred to in various terms across literature, leading to confusion and multiple interpretations. Terms like 'arts-based research', 'practice-based research', 'practice-led research', and 'studio-based research' are used interchangeably, creating a lack of clear guidelines (Niedderer and Roworth-Stokes, 2007). Linda Candy and Ernest Edmonds differentiate between 'practice-based research' and 'practice-led research' in creative practice. The former requires a creative outcome, aiming to generate new knowledge through practice, while the latter emphasises the nature of the creative practice itself, leading to a deeper understanding (Candy and Edmonds, 2018).

Despite the existing uncertainties regarding the terminologies and implications of practice research, notable progress has been achieved within our research milieu. The commissioned reports by Practice Research Advisory Group UK (PRAG-UK) examine how practice research enriches our understanding of the world and how it can be shared. They specifically address two questions: "What is practice research?" and "How can practice research be shared?" (Bulley and Şahin, 2021, p.3). These questions lie at the heart of the discussions, creating a space for collaboration within the practice research community to push the field forward, reorient its definition and make research more accessible. This joint effort lays the groundwork for the ongoing growth of practice research (Delgado, d'Inverno and Whatley, 2021, p.04):

> "Practice research offers a way of inquiry through doing and making and often takes place in communities and through collaboration. The collegiality and interdisciplinarity engendered by practice research offer huge potential for research practices in the future. Practice research offers new ways of knowing and investigating our world and can contribute more effectively and expansively to challenge-led research."

The reports provide valuable insights and recommendations for both researchers and supporting organizations, showcasing the broad impact of practice research across various sectors. As practice researchers explore unconventional publication methods, these findings

emphasise the need for academic research to adapt to modern forms of dissemination, embracing multimedia and other non-conventional research channels to disseminate knowledge effectively (Bulley and Şahin, 2021, p.09).:

> "In practice research not only can forms of intuitive, embodied, tacit, imaginative, affective and sensory ways of knowing be shared, but its researchers can find opportunity to adopt and harness novel mixed-media technologies to share their work internationally."

Interestingly, the PRAG-UK reports adopted the term '*practice research*' instead of '*practice-based research*', which emphasises research as an active and transformative process, highlighting its immersive and dynamic nature and underlining active engagement and experiential learning within the research process. It indicates that research is not just a basis for practice but a continuously evolving and interactive practice (Bulley and Şahin, 2021). Hence, I will adhere to PRAG-UK's terminology and incorporate the term 'practice research' throughout my thesis.

Yet, when an artist adopts a rigorous research method as a strategy for their practice, what distinguishes their approach from PhD practice researchers? As a necessary component of practice PhD programmes, the research outcome must be disseminated within a broader community through a structured process defined in university examination regulation, making an original contribution to knowledge of the field by addressing questions that are pertinent in the research context (Borgdorff, 2012; Candy and Edmonds, 2018). In a practice research PhD, claims of originality are demonstrated through creative output, which could take the form of performance, music and sound, digital media, games, film-making, poetry, photography, and other creative practices. They must be "accompanied by a critical discussion of the significance and context of the claims, and a full understanding can be achieved through the cohesive presentation of the creative artefact and the critical exegesis" (Skains, 2018: 86).

However, critical exegesis comes with its own historical, cultural, and disciplinary boundaries and expectations. The rationale and methods that relate to how and what we understand as knowledge contributions are founded on historical and geographical understandings of the

world. The position of an exegesis requires the world to be viewed and written about using supposedly objective, truthful and reliable methods of inquiry, and thus restricts our ability to think about the world as other or of ourselves in other realms (Barad, 2003; Feld, 2015; Minh-ha, 1991; Voegelin, 2021). In this context, ongoing discussions regarding practice research acknowledge the inherent instability, ambiguity, and multifaceted nature of knowledge, recognizing its potential emotional and affective dimensions, challenging the idea that it can always be captured through objective scientific principles and methods (Brown, 2021).

Within this framework, my research project employs practice research as the main methodological approach. Since the initiation of my doctoral journey, in 2021, I actively participated in the *Rebellious Research* seminar series, spearheaded by Dr. Agata Lulkowska, which acts as a pioneering platform for engaging in contemporary discourse on practice research alongside prominent scholars and researchers. These sessions have significantly broadened my comprehension of practice research, encompassing transdisciplinary and interdisciplinary approaches, innovative research dissemination methods, the integration of filmmaking into research practice, reflective methodologies, and other topics pertinent to the filed. The seminar series has emphasised the critical need for rigorous academic discussions and exploration in practice research, ultimately challenging the confines of conventional research practices. It has also underscored the significance of providing comprehensive and supportive environment for doctoral candidates and academics, ensuring the credibility and valuable contributions of academic art-practice research.

In the upcoming section, I will outline my research methods, aiming to produce a film project as the main outcome of my research. The proposed approach will integrate a series of "sonic methodologies" (Bull and Cobussen, 2020) into non-fiction film-making, with a particular focus on employing listening as a research strategy within contemporary documentaries. Recognizing that practices and studies utilizing sonic methods often yield knowledge in non-visual and non-verbal forms of sonic sensibility, it is imperative to incorporate ephemeral, tactic, and plural forms of knowledge into any definition of practice research, which will be elaborated in the subsequent discussion.

Film Project as Research: Notes on Listening

Figure 4: Atwell Road and Rye Lane, 1981: Southwark Council Archive

Figure 5: Still from Peckham Rye Lane. Image credit: Francisco Mazza, 2022.

As the name suggests, *Notes on Listening* is a film project and research about listening. Throughout my thesis, I will unpack the main strategies, critical reflections and conceptual frameworks that emerged from exploring the role of sound and place in non-fiction filmmaking. Furthermore, this research will contribute to contemporary debate in sonic research concerning the intertwined connection between sound and place in documentaries and how narrative and embodied experience are re-calibrated through the notion of 'amplifying ambience[7]', discussed in Chapter 3.

Reflective Questions for the Film's Production:

- Can a place be investigated through sound?

- How will Peckham sound in the future?

In 1700, Peckham was a rural community of 600 inhabitants, centred on the High Street, Hill Street, and Rye Lane intersections. According to the most recent census, Peckham is now designated as a 'hybrid layered community area', indicating that it is one of the most ethnically diverse areas in the UK. This Southeast London borough, most notably Peckham Town Centre, overlays a vast number of differing cultural identities which can be easily felt on its streets. One might suggest that Peckham is a "microcosm of the world" (Conn, 2022), with various cultures and identities from different parts of the globe coexisting, resulting in a dynamic, vibrant and, in some ways, conflicted space.

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[7] "Ambience, or Ambient Sound, is a term applied to sound studies and practices such as filmmaking, music, and sound art. In filmmaking production, 'ambience' is also referred to as "background" or "BG" on the soundtrack's post-production (workflow), and it works to produce a perception of place and thus establish a cinematic reality on the overall diegesis of the film. Critically, it reinforces the historical and cultural predominance in filmmaking production to preserve environmental sounds in the backdrops, neglecting the sensory, aesthetic, and political possibilities of the acoustic space in cinematic storytelling" (Mazza, 2022: online).

However, the 'regeneration project', or from the local community's perspective, the gentrification processes "which are blinded to the community system" (Conn, 2011), has been intensifying over the last years. Nevertheless, I would argue that Peckham is one of the few places in London where community engagement has successfully produced significant resistance to the officially proposed 'regeneration'. According to Conn (2011), this kind of resistance demands a 'horizontal engagement' to think about Peckham's present and future, in which the community must be understood, acknowledged, and incorporated into the planning process.

From the outset, I will develop a short film as a research outcome applying a series of sonic methods, such as critical listening, field recording, and sound design, as a primary strategy for film-making production. Through the film, I attempted to challenge the boundaries of the visual, not only through sound manipulation on screen, but also by accessing the specified "acoustic territory" (LaBelle, 2010) through the poetics and politics of listening. Through this, I will explore the creative tension between a place's documentary and an aural imaginary. In other words, through sonic sensibilities and methods, the film aims to produce a spatialised and affective sense of community that transcends the bordered limits of geographical space and conventional narrative structure, proposing an "expanded possibility of the actual" (Voegelin, 2018, p. 272). Furthermore, a focus on sound will perform a critique of the idea that urban spaces can only be accessed for studies which requires visual and discursive approaches, by returning instead to the social-cultural embodiment of a felt community through the sonic (Gentic, 2014).

My connection with Peckham has evolved significantly throughout my studies, surpassing the mere observation of filmic representation from an external perspective. As a resident, I have embraced a more entangled approach with the place, integrating listening as a methodological process into my daily life. This involvement with the community, including active participation in local groups like Peckham Vision and Aylesham Community Action (ACA), has enriched my understanding of the area and its diverse dynamics. These experiences have helped to develop a form of community through the auditory structure of listening that expands the experience of Peckham Town Centre into its acoustic territory. In this way, acts of listening

become the driving force behind the entire filming and editing process and the research. Therefore, a series of sonic methods were adopted to investigate not only the place but to reflect upon my listening perspectives and positionalities (LaBelle, 2010; Robinson, 2020) in relation to the place.

Therefore, *Notes on Listening* is a short non-fiction film where there are no dialogues, voice-overs, or commentaries, but instead, it consists of a "sensory documentary" (Castaing-Tayler et al.) practice research – "interested in using cinema to provide sensory experiences of cultural practices in the process of transformation" (MacDonald, 2015, p. 374). Thus, this project is directly relevant to documentary practices that embrace the aesthetic, affective, and cultural possibilities of sound. It emphasizes the contemporary relevance of creative non-fiction film-making, using sensory narrative approaches to evoke sense of place through ambient soundscapes, rather than silencing it via conventional narrative cues. Here, the film integrates sonic methods and sensibilities into the filmmaking process. In this direction, the research focuses on the film's modes of production and its methodological and contextual articulation, considering it a "film project as research" (Knudsen, 2018).

Methodology and Methods:

This practice research adopts the "film project as research" (Knudsen, 2018), focusing on sonic methods such as listening practices, field recording, and sonic composition applied to non-fiction film-making. A critical component of this strategy is the emphasis on "documentation and critical reflection as the core of the project methodology" (Knudsen, 2018, p.123), ensuring rigorous research inquiry.

Knudsen (2018) highlights that filmmaking has the potential for academic research by generating unique insights and knowledge through experiential and reflective processes. He explains that the process of creating a film involves embodied sensory experiences that deepen understanding, a reflective practice that requires ongoing critical engagement and adaptation, and collaborative efforts that integrate diverse perspectives to enrich the research. In other words, he argues that a film project has the potential to be considered research when

it systematically explores questions or themes through film-making and articulating methods and practices that yield new knowledge. Documenting and articulating these methods, along with the final film, provides an effective way to disseminate research findings to wider audiences, often extending beyond the reach of traditional written research.

In this project, I will document, articulate, and reflect on critical aspects of the methods and creative experiments used to produce the film, employing a practice research approach. The project is structured around three proposed stages to address the inquiries presented, as illustrated below.

Table 2: Research Stages

Stage 1 – Contextual review across disciplines, in documentary film studies, sound studies, and anthropology of sound.
Stage 2 – The research methods will be defined through the development of a 'Creative Research Process Diagram,' which will guide a series of creative experiments. These experiments involve applying methods, ideas, and techniques and integrating theory into practice with reflexivity.
Stage 3 – Involves discussing and reflecting on the research outcomes, which include a short non-fiction film, three sonic compositions, and this written thesis addressing the research questions.

Stage 1

During the initial stage of my research, I undertook a contextual review to explore the literature and contemporary practices in documentary film-making and film sound studies. This aimed to articulate how the proposed research contributes to advancing the knowledge of existing practices, whilst understanding the current limitations of the role of sound in non-fiction film-making. Stage 1 culminated in the development of Chapter 1 and 2.

Stage 2

This stage consisted of developing a research process diagram (detailed in Chapter 2) that combines a series of sonic experiments within documentary film-making. These experiments were divided into Phase 1 and 2, resulting in a range of sonic explorations and compositions called *(In)Audition*, discussed in Chapter 3. This comprises a variety of filming strategies and audio-visual experiments. This creative approach worked as a research catalyst for creative decisions on how the short film was to be produced, exploring the research aim and objectives through practice research.

Stage 3

During this phase, the research outcomes were discussed and reflected upon, encompassing new knowledge and insights explored in Chapters 3, 4, and in the thesis' conclusion. Furthermore, the process, documented and displayed on a website, serves the vital function of 'giving access to processes...an important way of articulating methodologies' (Knudsen, 2018, p.127). Stage 3 unfolded with the presentation of artefacts, the written thesis and the film's website, which showcases the tangible results of the research.

Each experiment, defined as Experiments Phase One and Two, which is part of the research approach and the film proposed, accounted for the planned sequence designed (diagram below), shifting the theoretical frame according to the specificities of each stage.
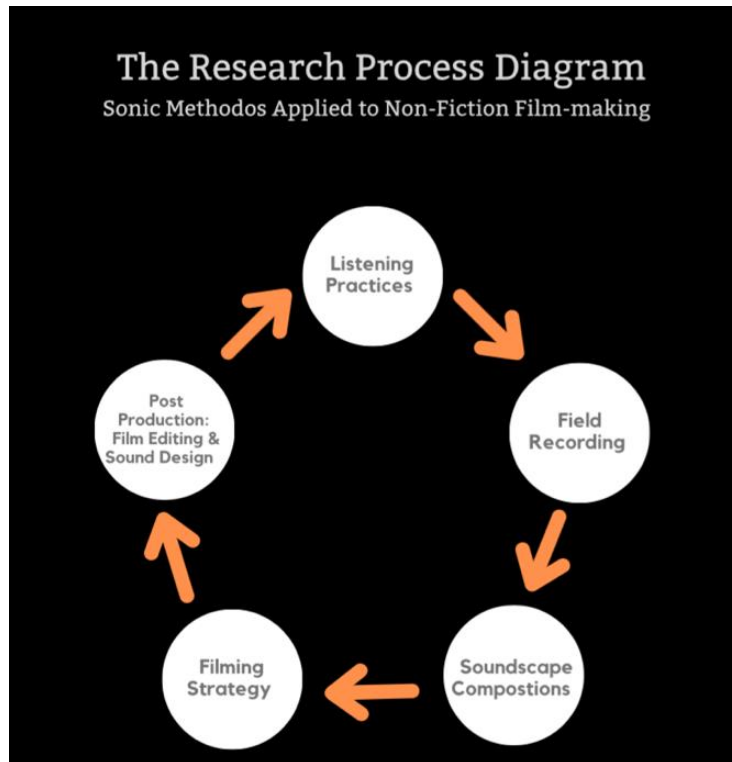
Figure 6: Research Method Diagram (Mazza, 2022).

The diagram illustrates the interconnected stages and methods employed in the practice research, aimed at comprehensively exploring the integration of interdisciplinary practice and theory in producing the film project. These stages/methods were carefully applied and analysed in-depth within the next chapters of the Thesis.

Listening Practices:

This initial stage involves situated listening as a critical research trigger, acting as the foundation for exploring Peckham's Rye Lane and developing my film project. By engaging in an embodied listening approach, I immerse myself in the area's acoustic territory to reveal its social, cultural, and environmental layers. This process goes beyond merely hearing sounds; intentional, focused listening fosters a phenomenological understanding of place. The theoretical context behind this approach is further unpacked in the "***On Listening"*** section of

this chapter. Practically, the methods include designing a listening protocol (detailed in the appendix), keeping thorough listening diaries, conducting sound walks, and expanding listening practices throughout the entire film-making process, including field recording, soundscape compositions, cinematography, and sound design/mixing. These practices are essential for capturing the location's auditory character, shaping the film's narrative structure, and advancing sonic practices and concepts within non-fiction film-making.

Field Recording

This stage focuses on exploring field recording through various microphones and techniques, drawing from sound art practices and discourse. The recordings will sonically investigate Peckham's soundscape, gathering material for the sonic compositions. The theoretical context behind this approach is detailed in "***The Art of Field Recording"*** section of this chapter, while the experiments, critical reflections, and discussions on this practice will be unpacked in Chapter 3 via the ***Experiments Phase 1 and 2*** and a series of three sonic compositions.

Soundscape Compositions

The collected field recordings are arranged and manipulated into structured compositions in this phase. The aim is to explore Peckham's acoustic environment, where sound becomes the driving force for shaping narrative possibilities in the following stages of film production. The experiments, critical reflections, and discussions on this process will be unpacked in Chapter 3 through ***Experiments Phase 1 and 2*** and a series of three sonic compositions.

Filming Strategy

At this stage, visual elements are planned and shot in response to the soundscape compositions. The integration of sound-driven filming strategies ensures that the sonic elements shape and influence the cinematography. Since this project emphasizes the sonic aspects of non-fiction film-making, a detailed breakdown of filming strategies is not the focus. However, Chapter 3 will explore and reflect on critical visual techniques and strategies used

in *Notes on Listening* and the relationship between the camera frame and the location sound recordings.

Post-Production: Film Editing & Sound Design

In this final stage, the film's visual and auditory elements are not just edited, but meticulously refined in this final stage. Every decision is guided by earlier sonic experiments and visual footage, with sound design playing a pivotal role in shaping the final narrative. Chapter 4 will reflect on and discuss the research findings, unpacking the film editing process and sound design. It will explore the holistic integration of sonic thinking and methods throughout film-making.

However, at the outset of my experiments, I observed that creating an unscripted non-fiction film necessitates flexible decision-making and encounters influenced by various choices. Therefore, I realized that the designed 'research method diagram' did not strictly follow a linear sequence or predetermined path as originally intended for the experiments. The amalgamation of listening practices, field recording, soundscape composition, visual shooting, and editing in the experiments constituted an intricate, interconnected process, demanding a more adaptable approach. This approach entailed continual evaluations guided by "the variants of reflection in practice" (Candy, 2020, p. 51). For example, listening exercises stimulated visual concepts, whereas decisions made during the editing phase prompted revisits to specific locations for additional sound recordings. Consequently, the proposed research diagram required adjustments to adopt a more generative approach. A discussion and the new updated diagram will be expounded upon in Chapter 3.

Reflections on Sonic Methods and Practice Research
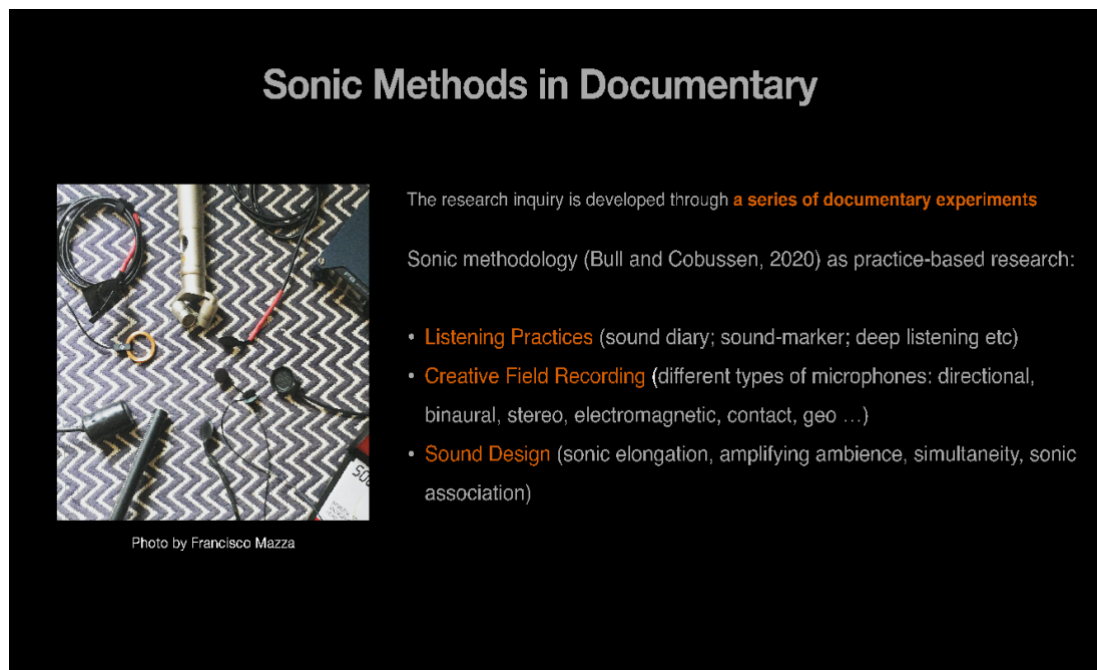
Figure 7: Mazza, F. (2022). Sonic Methods applied to Documentary Filmmaking.

Artists and researchers who apply methodological sonic tools such as field recording, soundwalks, improvisation exercises, sound design or musical performance to connect theoretical discourse with practical experience do so "to gain knowledge about social, political and environmental aspects of our world" (Bull and Cobussen, 2020, intro).

The Bloomsbury Handbook of Sonic Methodologies offers a series of articles exploring how knowledge might be obtained from a variety of methods that has a direct contact with sound. These methods, vocabularies and theoretical tools that draw on sonic initiatives and experiences, for instance, have developed from at least two parallel tracks, split by methodological and ideological distinctions. Those who pursue intellectual assimilation of the unseen into the seen, in which sound is supported by traditional (visual) frames, and those who attempt to grasp the ephemeral qualities of sound to reveal an unseen world (Cobussen, 2020 and Voegelin, 2020). As a result, many disciplines provide multiple perspectives on how

new knowledge, experiences, and unfamiliar worlds can be revealed by listening, recording, processing and mediating sounds, both in and out of auditory environments.

These sonic methods produce "less tangible knowledge than more traditional forms of social inquiry, which rely on 'concrete' or visual data that can be tested for objectivity, reliability, and validity" (Voegelin, 2021, online presentation). However, it is precisely the diffuse, unstable, and indivisible qualities of sound (Augoyard and Torgue, 2006) that contribute to its uniqueness. Its absorption is grounded on a perception of time, a fleeting moment of insight that aggregates to produce a deeper understanding of the entire sonic event (Labelle, 2015) and offers significant potential for the reintegration of multisensory experiences in knowledge production (Bull and Back, 2016; Pink, 2015).

Critically, the integration of sonic methods and components into practice research demands the development of a theoretical framework, not to mute the sonorous' ephemeral and affective capacities (English, 2017), but rather to be effectively extended into research in order to be assessed and analysed.

Aural Reflexivity

Nicole Brown (2021) argues that knowledge is never fixed, but is constantly relational, contextual, and multimodal, and should encompass multiple forms of communication. She reminds us that language is only one form of communication amongst many, including bodily expression, listening, and visual languages. However, it is extensively used as the primary means of communication and learning in many aspects of educational settings. In response to education's logocentric traditions, she proposes a process which involves the combination of participatory research, artistic practice and embodied approaches from autoethnography to art making as three essential strands for practice research. Through this, an intertwined process of 'doing-thinking-being' is established as a holistic approach in which data is continuously translated from one strand to another. Thinking critically about society, and writing about oneself in order to 'make sense' within a specific practice (Marsden, 2022), requires strategic translation into a creative artefact with the purpose of contributing to new knowledge through practice research (Brown, 2021).

Thus, this process, and translations across 'doing-being-thinking' in which methods are associated with embodied inquiry, artistic practice and reflexivity, might be helpful in the context of my research. Adopting critical listening practices as part of my research methods will require translation strategies; from 'experience' into 'data' in order to be analysed, evaluated and articulated into creative work. However, listening, like memory, is temporary, relational, and immeasurable; the moment it is heard, it vanishes instantly (Lane, 2015; et al.). The method I have developed for my practice-based research has incorporated aspects of autoethnography, field recording and filmmaking "as a way to materialise sound and make it suitable for analysis, study and creative use" (Lane, 2015, online). As Cathy Lane (2015, online) illuminates:

> "[r]ecordings both make and are memories – ghostly traces of the past remaining in time and space. These traces of the past echo and reverberate through language, place-names, family stories, song and the sounds of the natural world to form a sonic background to the present."

Thus, autoethnography combined with field recording remains a promising technique for analysing individual experience in order to derive an understanding of a broader range of social experiences (Ellis, Adams, and Bochner, 2011) and their mediation through documentary film-making.

I documented my observations and findings as field notes, creative field recordings, sound composition and audio-visual experimentation as part of the creative research process (diagram, fig. 03). "Together, these methods of documentation constitute a creative analytical processes (CAP) ethnography" (Richardson and Pierre 2008, in Skains 2018, p. 88), which can be reassessed at any point in the future. This will permit critical reflection and analyses on patterns, correlations, discoveries, study, creative use and breakthrough moments (Marsden, 2022). I expect that the subsequent artefacts and critical exegesis will be closely connected, constantly influencing each other in an exchange of knowledge (Skains 2018) through a looping process of practice and research, made only possible through a "creative reflective practice" (Candy, 2020).

Theoretical Framework: Sonic Thinking and Sensibilities

The human capacity to perceive the world and its realities relies on the materiality of things such as objects, spaces, and solids to be sensed in relation to less stable and intangible things such as time, feelings, air, thoughts, smells and sounds, as David Toop (2021) suggests. Our ability to orient ourselves within the visual world in a stable and reliable manner depends on this, demonstrating that the material and tangible objects we can touch hold within them suppressed oral culture and, consequently, elevate the eye above the ear as the preferred sensory organ (Berendt et al., 1988).

David Toop (2021, p.166), in his article *Resonance, Difference, Dismemberment*, asks us to:

> "Imagine then a reverse world in which reality is imagined or designed as a vaporous flux of vibration and resonance, in which words dissolve into shimmering echoes, physicality becomes diffuse, almost lost in a dream state of aurality."

This essay was written in response to Victor Segalen's book *In a Sound World*, first published in 1907 with the original title *Dans un Monde Sonore*, and translated into English in 2021 by Marie Roux and R.W.M. Hunt. It's possibly the first novel, written over a century ago, with direct relevance for the histories of sound studies and ways of writing about sensory experience. Yet, the book is often overlooked and has gone largely unrecognised for its seminal influence (Toop, 2021: 166). *Dans un Monde Sonore*, which places sound experience at the centre of its unusual plot, may inspire reflections on how Western culture has given prominence to visual-logocentric ways of knowing. These modes of understanding the world have culminated in a succession of reductive and limiting taxonomies, which may provide insight into the ways in which documentary film-making has been produced over the years.

For Trinh Minh-Ha (2013), the visually oriented dominance of conventional film has established that "the ear [is] subordinated to the eye" (p.155). Documentaries are well-known for generating knowledge and meaning through what they display visually and discuss rhetorically. However, visual communications rely on a cultural construct that bypasses the senses and

has oriented itself through modes of signification and interpretation that demand both a physical distance and a critical distance that sells itself as objectivity (Minh-Ha, 2013; Nagib, 2020; Voegelin, 2019).

The recent turn towards sound across disciplines in art, theory, cultural studies, architecture, philosophy, anthropology, technology and science has demonstrated that sonic methods of investigation and interpretation refer to an embodied capability of knowledge (Gershon, 2011). Furthermore, the 'immaterial' quality of sound contributes to its uniqueness; "its consumption is based on a temporal experience, a fleeting moment of comprehension that accumulates to create a greater understanding of the whole form" (LaBelle 2015 in Backer and Anderson-Kunert, 2019, p.2) and offers significant potential to reintegrate multisensory experiences into knowledge production (Pink, 2015; Bull and Back, 2016). The indivisible sphere of a sonic sensibility requires a "transdisciplinary approach that cuts across established methods and conventions of many disciplines" (Braidotti, 2011a: 7 in Voegelin, 2021), and offers the opportunity to access realities in between things (Minh-Ha, 2013). To be precise, I am not suggesting for an elevation of sound studies and practices above other sensory registers. However, I would like to expand on the argument that sound can potentially provide plural perspectives and forms of knowledge (Feld and Brenneis, 2004, Sterne, 2012; Voegelin, 2021). It invites us into the multisensory, expanding the ways we can 'see' the world. As Voegelin illuminates, "…once you start to be attuned to sound, you can also be open to smell and touch and vibration and even the inaudible, positioning yourself as a sensory being" (Voegelin 2021, UCL interview).

In this sense, sonic methodologies such as listening, creative field recording, soundscape composition and other auditory methods can not only transmit knowledge about places, environments, and surroundings via timbral information, signals and soundmarks (Schafer, 1977; Chion, 1994). Rather, they can also offer a variant view, a sonic possible view into the world (Voegelin, 2014), with its indivisible vibrations and sensibilities. Thus, the perceptual and

"political possibilities of sound"[8] (Voegelin, 2018) may be entwined in the production of knowledge, with the potential to be creatively expanded in contemporary non-fiction production.

The anthropologist, filmmaker, musician, and sound artist Steven Feld has shifted anthropological perspectives expanding them towards listening and field recording to develop an 'anthropology of sound'. In doing so, he is firmly influencing the direction of today's sound, and sound culture studies, by including what people hear on a basis day in his ethnographic studies (Boudreault-Fournier, 2021). In addition, he broadened the terminology 'anthropology of sound' to 'acoustemology', a term derived from the "fusion between acoustics and epistemology, to refer to sound as a way of knowing" (Feld, 1996).

Feld's acoustemological practice, including the environment and its social context in the production of knowledge, was influenced by the concept of soundscape, although he eventually distanced himself from this (Boudreault-Fournier, 2021, p. 39). R. Murray Schafer theorised soundscape as a combination of sounds dominating an immersive environment, overlapping auditory sources and their effects (Schaffer 1997, 7). Additionally, he prompted a variety of approaches from science to the musical domain to map and analyse urban environments, natural ecosystems, and human-environment interactions (Eisenberg, 2015). Therefore, Schaferian soundscape concepts have been consistently applied in field recording practices, acousmatic music, sociocultural analyses and film sound studies as ways of thinking about the relationship between emplacement and social dynamics (Lee, 1999; Sakakeeny, 2020).

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[8] Salome Voegelin's book, "The Political Possibility of Sound," delves into the hidden intricacies and dynamic nature of sound and listening, highlighting their political potential in shaping concealed narratives that integrate the unfamiliar into our reality. She reveals the prospect of a sonic reality through what she terms as "possible slices of a sonic world." In essence, Voegelin envisions a politics that seeks to embrace a world characterized by interconnectedness and collaborative engagement.

Although Schafer's legacy is still widely influential today, it has been critically revised by many current sound practitioners and researchers "for representing a utopian and romantic-ecological-environmentalist vision of sound" (Boudreault-Fournier, 2021, p. 39). Schafer's study indicates sound as a remote landscape to be observed and analysed; an approach that removes hearing from the other senses without connecting with debates on agency, perception, and social-political dimensions (Thompson, 2004; Ingold, 2007; Feld, 2015a; Wright, 2022). For Emily Thompson (2004), soundscape is not only a result of sounds in a specific environment to be measured with taxonomies or used aesthetically as compositional material, but instead a way of perceiving that environment culturally and sensory in order to make sense of the world (p.1).

In comparison with Schafer's soundscape, "who takes sound as an indicator of how humans live in their environment" (Boudreault-Fournier, 2021, p. 39), acoustemology contrasts with the taxonomies and categorization of a sonic environment supported by spectrograms, sonic mapping and other analytical activities as a division of the senses. Thus, acoustemology has inspired many anthropologists and artists to engage with our sonorous world by positing listening as a form of sensory knowledge where the contextual environment is fluid, relational and requires positionality.

Therefore, acoustemology motivates a reflexive practice not obsessed with the taxonomies of a sonic environment such as frequency and noise measurements, timbral information, volumes, and categorizations (Rice, 2018). Instead, it searches for "sensitive ways in which sounds are shaped by environmental, cultural, and historical factors" (Rice, 2018, p.4). As Feld (2022, interview) illuminates, "playing back the recordings was not a way of collecting data for studies, but a way of getting people's references and connections into a dialogic process, in which sound is connecting to the continuous and relational ways of being". In this scenario, there is no intermission in the dynamic world of sound across species; it is always shifting perspectives, interlocked and interconnected. If knowledge is primarily derived from language, that which refers "to a code or a language to interpret the message" (Chion, 1994, p.28), this acoustemological practice of perceiving the world incorporates the poetics of a sonic language. It encompasses an acceptance of differences related to gender, class, and identity through the

contingencies of a sonic landscape that reintegrates voice sounds, environment, songs, birds and urban noise, rather than separating them. In this framework, an anthropology of sound represents the current effort to explore and integrate "sounding-as and sounding-through-knowing" (Schulze, 2020).

Recently, anthropology has attempted to rethink its methodologies and colonial roots through autoethnography and sensory ethnography (Howes, 2013; Castaing-Taylor, 2015; Pink, 2015). In doing so, innovative methods and new technologies have been applied in anthropology which introduces an alternative approach to collecting data and disseminating research and can inspire new ways of thinking in anthropology. It enables the experience of a culture through its sensory components, collaboratively producing aesthetic experiences, suggesting new theoretical frameworks, and engaging with a multimedia approach to expand knowledge beyond language.

This phenomenological approach resonates with my own sonic practice and research methods. To this end, in my practice, listening strategies and field recording will be used to generate data about the acoustic territory of Peckham's urban environment. Thus, this acoustemological framework informs my research objectives and the sonic methods of this project while framing the possibilities for extending sonic thinking into a non-fiction film production. Creative field recording, in turn, unlocks possibilities for exploring qualitative sonic data, and expanding artistic horizons within the film-making production.

The Art of Field Recording

My practice constitutes an effort to investigate critically and artistically, the relation between listening and environmental surroundings, and how can sound operates across different media. I have been experimenting with ways to listening, record and reframe the intricate connection between sound and environment, exploring the intersections of modern composition, installation, non-fiction sonic narratives and sound for films.

Within the framework of my doctoral research, whilst developing a series of sonic pieces as part of an experimental approach for the proposed non-fiction film project, I have engaged with methods from autoethnography; by transposing ethnographic writing methods into sound; in other words, into the practice of listening and field recording. This strategy has resulted in creative outcomes such as listening diaries, sonic pieces and compositions, which emphasise ways of thinking about sound not generally addressed in traditional documentary practices.

In this sense, producing sonic narratives and oscillating between non-fiction sound works and artistic motivations, this research is grounded into sound arts practice and discourse, particularly those of Salomé Voegelin (2014; 2019; 2020), Brandon LaBelle (2018; 2020), Mark Peter Wright (2017; 2022). Thus, my field recording technique emphasises a performative engagement with the place that permits the recordist's creative and affective presence to be expressed. As Voegelin (2014) articulates, "such a methodology emphasises the trace left in a habitable environment rather than attempting to report on a pre-existing reality" (Collateral Damage). Voegelin and Wright both critically advocate in opposition to 'traditional' field recording that vanishes the recordist position. Instead, they propose an idiosyncratic approach which articulates the field, the media, and the artistic intention as an intertwined process in the art of field recording. As Voegelin (2014, Collateral Damage) points out:

> "Some field recording is thus incredibly boring and irrelevant for all but the recordist: the exotica of the source replacing the idiosyncrasy of the material recorded, the pleasures and complexities of which are hidden and inaccessible to an audience standing by and listening in."

Countering the legacies of self-silencing, which are usually present in traditional practices of ethnographic recordings and documentaries, Wright (2017) encourages a different approach: "this is a call to point the microphone critically and imaginatively backwards, into and through the self that shadows all mediated environments and species" (online). This critical perspective requires the artist to assume the social, political, and environmental dynamics at play when interacting within the place, or at least not to ignore them. By doing so, he suggests that new listening strategies, "both in and out of the field", can be cultivated as a critical practice "which can directly engage issues of ethics, power, and agency" (Wright, 2017, online) rather than an illustrative representation of reality.

Therefore, although my technical and conceptual methods of field recording aim to incorporate the creative agency of the sound artist within the field, incorporating these concepts into the context of non-fiction film-making will require interdisciplinary articulation with documentary film studies and practices. In essence, I have coined the term 'amplifying ambience"[9] as a critical engagement within sound and place as a "phenomenological attitude" (Huvenne, 2023) in documentary filmmaking production, and the creative mediation process in sound design. By doing so, the following chapters will engage with the sequential processes of experimentation, as illustrated in the research diagram (figure 03), to effectively integrate sound into the film project through practice research. This creative approach has consistently influenced and directed the film's research process, filming strategies and editing decisions.

In other words, investigating how to expand sonic thinking in documentary film-making will require attention to the embodied, aesthetic and political potential of our sonic world. Thus, understanding that sound is much more than just communication, more than the information conveyed by the sonic representation. It also contains abundant possibilities that present an alternative route for documentary beyond the notions of realistic representation, persuasion and the emotional enhancement often associated with music (Matthews, 2021).

These frameworks must also underpin the methodological inquiry: How can listening and field recording practices critically integrate sonic thinking into the non-fiction film-making and research process? This question served as guiding principles in developing my research methods and the accompanying diagram, as discussed earlier.

Expanding Terminologies

Before expanding upon the practice and concepts of field recording, it is necessary to identify and consider the challenges associated with the terminology and vocabulary in everyday use within the film industry. For example, in film, video and TV production, 'location audio' is the

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[9] The term "Amplifying Ambience" will be unpacked further in Chapter 3.

recording of sound outside the controlled conditions of a studio, and the term is associated with camera and film production. A video location audio operator, according to Miles (2015), is "a one-person sound department responsible for capturing all the required dialogue, ambience, and sound effects necessary to build a rich soundtrack in postproduction" (p.3). He defines the requirements of a location audio operator as a combination of technical skill, experience, common sense, and attitude: "A successful operator is confident, professional, adaptable, and most importantly, a team player with a positive outlook" (Miles, 2015, p. 04). The role of location audio in the film industry thus involves balancing technical and practical abilities, with a primary responsibility to capture clean dialogue and appropriate ambience. They must work almost as though they were a ghost, shadowing the camera with minimum disruption to the production process, with no authorial voice and minimal creative agency.

Through my PhD project, I seek to rethink and recalibrate the established concept and practice of location sound recording and the role of sound in documentary production. This aim can be achieved by considering the agency of the sound practitioner in the film-making process. Thus, field recording has been an integral component of the research methods, utilised from two main yet opposing perspectives:

1) In the first, in which field recording is part of the research process, it is autonomous of the visual domain, tied to the art of recording in sound arts practice and discourse; this involves applying listening practices and sonic composition strategies.

2) For the second, field recording is specifically embedded within the framework of film-making and as it can be articulated through visual footage, where alternative strategies have been explored from outside of cinematography's hierarchical traditions.

Chapter 3 will examine the discussions and results of these experiments. Both scenarios open up questions around agency, authorship, and performance. Whitford (2021) reflects that "the 'realist' sound recordist's role has an authorial voice and a creative agency" (online at the IJCMR). He argues that immersive audio technologies offer novel creative approaches for non-fiction makers and audiences to experience a sonic time-space via immersive audio technologies, from audio capturing to its reproduction (Ibid.). Therefore, a reimagined definition

for location sound recording in non-fiction film-making is suggested by proposing new recording methods afforded by technologies such as ambisonics, in which sound would be embedded in the film's development process (Ibid.) In this sense, the agency and emancipation of a sound practitioner from the camera, which now demands new tactics for recording ambient sounds beyond the camera frame, requires new creative approaches.

These approaches demand more comprehensive technical skills and a deeper level of critical engagement within sound. Within this context, the broadening of sonic thinking and sensitivities transcends the conventional boundaries of the role typically ascribed to a location sound recordist in filmmaking. As Wright (2022) articulates, field recording "performs in the margins of representation" (p. 41) and highlights how it pushes boundaries, blurring subject-observer distinctions and requiring fresh knowledge perspectives that embrace both rational and irrational aspects. It ultimately prompts practitioners to critically navigate the complexities of location, acknowledging the dynamics of power and agency in the field (Wright, 2022, p. 41). In this perspective, if a sound practitioner intentionally assesses, enhances, records, investigates, and actively produces, then a new way of thinking about the role of location sound recording in my film project becomes necessary. When untethered from the camera, sound may shift hierarchical assumptions of authorship and agency.

Therefore, I will avoid the use of 'location sound' or 'sound operator' as a refusal of the hierarchical structures and limitations that these terms refer to. Instead, I will prioritise alternative terms such as *field recording*, *sound artist*, or *sound practitioner* as a way to engage conceptually with the poetics and politics of sound in the documentary film-making process.

From Location to the Field

Field recording has progressed dramatically over the past decades. This transition reflects shifts in ethnography, new recording technologies, and, most significantly, growing acceptance of this discipline as part of film sound and sound arts practice.

According to Lawrence English (2017), "if field recording is to be embraced as part of the canon of sonic arts, the practice needs to be able to be identified as creative and thus of artistic merit"

(p. 127). Field recording continuously expands beyond its historical origins, which were based on a desire to capture authentic sounds as empirical and scientific knowledge about the world, with its colonial conventions and educational aims. Lawrence argues that "listening, as an agentive and affective undertaking, is the point at which creativity emerges in the practice of filed recording" (128). Therefore, listening is contingent on the artist's motivations for analysing, understanding, and materialising their listening as field recording through the technological mediation of microphones and recording devices. Furthermore, it requires the artist's curiosity, desire, and motivation to constantly challenge and exceed their audition expectations.

In order to assess the nature of the recording, creativity and curiosity throughout 'acts of listening' in sound arts practice, English (2017) reinforces that this translation process requires a relational listening, "in which technological mediation and creative decisions are in constant articulation" (p. 129). As consequence, I propose employing the notion of relational listening and field recording as creative expressions in non-fiction film-making. Thus, digital technologies are critical tools for field recording; capturing, editing, and amplifying sounds from environments, not only to create immersive multisensory experiences but also to materialise sounds that are not audible to the human ear. If reality is perceived and circumscribed by what we can see, hear, feel, taste and smell, we (as humans) have a limited capacity to perceive this reality (Toop, 2022). From an auditory perspective, the world is flooded with waves and vibrations that are inaudible to human hearing capacity, ranging from 20hz to 20khz. In this way, technologies such as geophones, electromagnetic and contact microphones enable us to reveal infrasound[10], vibrations and resonances, and access previously unseen and inaudible places, expanding our possibilities for being, understanding, and positioning ourselves in the world.

From this vantage point, and in opposition to the notion of recorded sound as supporting visual elements and capturing dialogue as straightforwardly as possible, several have claimed that

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[10] Sound waves w/a frequency below the lowest limit of human hearing (~20Hz).

the recording of sound causes it "to enter the realm of the symbolic and the social" (Findlay-Walsh, 2019). With recording techniques and critical listening, we are not just generating sonic representations of the world but also framing, amplifying, and articulating that world.

On Listening

It might be taken as a given that hearing is more passive than listening, with sound pressure patterns influencing hearing, while cultural experience and history affect listening (Cage, 1952; Chion, 2012; Oliveros, 2015; Schulze, 2020). The current expansion of theories and practices of listening has been emphasised as a transdisciplinary subject that moves across disciplines.

Considering this, while reflecting on my experience as part of The Listening Academy (see: https://listeningbiennial.net/academy), established in 2021 as "an independent research academy focusing on listening as a philosophical, artistic, social and somatic issues" (online), I would argue that listening prompts critical and creative curiosity. According to the various activities and critical discussions that we have undertaken as a group, contemporary debates around listening "encourage critical reflections beyond its auditory signals"; and more inclined to interdisciplinary debates including pedagogy, social and political spheres, aesthetic propositions, collaboration and de-colonial activities (The Listening Academy, 2021). In this regard, the questions that drove The Listening Academy 2022 edition were: "How might we think further about listening as a critical, discursive field or modality? What forms of emergent practices can be developed and deployed by way of listening, which may impact current social and planetary challenges?".

Returning to the literature, hearing is distinct from listening; hearing converts vibrations into audible sounds. However, listening requires acoustic and psychological comprehension (Oliveros, 2015). Voegelin (2010) expands this understanding through what she terms 'generative modes of listening', arguing that listening is entwined with ideological and aesthetic choice, always oriented by the contingency of a present moment. In this perspective, listening is not a neutral modality but rather one that demands subjective participation and experimentation: "listening produces, it invents, it generates" (2010, p.13). LaBelle (2021) also

explores the social-political contexts of listening. He suggests listening as a relational practice in which the agency of sound may reflect power-relation dynamics in our social environment.

Carlyle and Lane's (2021) edited collection, *Sound Arts Now,* explores contemporary artistic practices and theories by bringing together interviews with practitioners from various disciplines, backgrounds and nationalities. As they evaluate, the emphasis on listening and sound as methodological tool emerged from the interviews more forcefully than it did twenty years prior (Carlyle and Lane, 2021). Thus, in the context of artistic practice and research, "listening is presented as medium or modality, a genre or a discipline in itself; on the other hand, maybe it is the exact opposite, …becoming a reflexive part and parcel of what a critical practitioner does" (Ibid., 223).

However, we must exercise caution while investigating listening from contemporary sound studies in the context of film sound studies. One may argue that they are entirely separate disciplines, since listening in the context of film studies necessitates the consideration of audiovisuality. For example, we cannot separate the visual and audio elements when witnessing a moving-image piece (Chion, 1994). In reality, I suggest a holistic and non-binary synergy between disciplines, in which listening as a research strategy might be embedded in documentary film-making, progressing from an embodied and phenomenological sense of place to the audiovisual composition. As a result, concepts of audiovisuality will be addressed in my research in accordance with the 'research process diagram' outlined for the project (figure 3). If sound can be a 'potent trigger for research' (Feld, 1996; Cusack, 2017; Karel, 2020), it is intriguing that listening beyond linguistic meaning remains overlooked in documentary film-making and, more broadly, in academic practice as research.

Aligned with the research diagram directing the development of my film project, *Notes on Listening*, I engaged in initial research experiments exploring various listening practices. These experiments constituted the foundations of my film. These early experiments are categorised in three key segments: 1 - development of listening protocols; 2 - maintenance of detailed listening diaries; and 3 - thorough sound mapping of the Peckham's Rye Lane area, delving

into its acoustic territory. Some of these activities and experiments are discussed in chapters 3 and 4.

Chapter Conclusion

This chapter has delineated the methodology and methods employed to create a film project as part of the research undertaking. Here, I introduced the implementation of sonic methods in non-fiction film-making, emphasizing the use of listening as a research strategy within the framework of an PhD practice research. In this chapter, the second objective of my research has been achieved:

> To develop a practice-based research methodology grounded in the creative possibilities of integrating sonic thinking and methods into non-fiction film-making. This objective focuses on how these approaches can redefine sound and place as artistic mediums within experimental documentary forms. (Research Objective 2)

As I embarked on this exploration, I have interconnected the role of 'sound as a way of knowing' and examined the often-neglected connection between listening, place (acoustic territory), and documentary film as a way to articulate sonic methods and sensibilities in a film project. This site-sensitive research approach embraces phenomenological aspects of sound and has compelled me to reconsider how the body's presence and situated listening experiences can be critical catalysts to the non-fiction cinematic encounter. This, in turn, enables novel creative approaches to apply sonic methods into a non-fiction film production grounded on interpretations of the conceptual frameworks drawn from sound practices and studies.

As this practice research unfolds, it will establish its position in an emerging field where listening will act as a strategic and creative catalyst for the film's production, bridging gaps within the well-established trajectory of audiovisual relationship studies. Therefore, this chapter established the methodologies, methods and theoretical framework for the emergence of

listening practices and creative field recording laying a strong foundation for integrating sonic thinking in the film project, aligning with the designed 'research process diagram'.

To emphasise the importance of this interdisciplinary approach, the second part of this chapter established the theoretical framework in which this practice research is situated. By advocating for the integration of sonic thinking and sensibilities in the film-making process, it urged a re-evaluation and re-orientation, encompassing both aesthetic and political considerations within our predominantly visually-driven documentary culture. I cannot claim to have exhaustively charted all possible creative tactics for articulating sonic thinking and its creative potential to recalibrate the sonic landscape of documentary film. However, I can claim to have gained a kind of initial snapshot of how an interdisciplinary approach crossing disciplines from sound arts, sonic anthropology and film sounds might be conceived and rearticulated in the documentary form so far, which has motivated the methodology and research methods.

In the upcoming chapter, I will analyse the influential role of sound and the environment in documentary production, utilizing a sequence of sonic compositions and critical reflections as a fundamental aspect of Experiments Phase One and Two within the context of the filmmaking and research. That is, I apply the term 'amplifying ambience' as a critical framework to explore listening and field recording practices for my film project, aligning with the 'research process diagram' designed. I shall continue to extend the search for alternative conceptual positions that will emerge from this practice, thus revealing the significant implications for the filming strategy, editorial procedures, and the intricacies nuances of sound design within my film project.

3   Chapter Three: More Than Background

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Chapter Introduction

In Chapter 2, the theoretical foundation was established for incorporating sonic thinking and sensibilities drawn from sound studies and practices into non-fiction film-making processes. Next, the research methodology and methods were provided to create a film project as part of the research undertaking. A ' research process diagram ' illustrated the incorporation of sonic methods—such as attentive listening, creative field recording, crafting soundscapes, and sound design—into non-fiction film-making. This diagram will guide this PhD practice research, exploring how these sonic methods can work as research triggers and shape the film project. Therefore, integrating listening as the starting point for the film's development creates a dynamic shift in the film-making hierarchies of production, allowing me to investigate the overlap of auditory and visual spaces and the consequences for the documentary form.

This chapter examines the implementation of the research methods via a series of experiments focused on listening, field recording and sonic compositions and as such aligns with the third objective of my research: to experiment with listening practices and field recording in film-making through a series of sonic works. This objective will focus on the perceptual and critical impacts of representing sound and place as a way of knowing. It will highlight their roles as catalysts for advancing documentary research and informing subsequent film production.

This exploration, concentrates on the role of sound and environment as a powerful inquiry. That is, I apply the term 'amplifying ambience' as a critical framework to explore sound in the documentary form. In addition, I address the following questions on methods and outcomes from the Phase One and Phase Two experiments of my practice research, according to the 'research process diagram': How can accessing the sonic environment through situated

listening[11], field recording, and soundscape composition articulate critical and creative approaches that transcend the reliance on visual- and language-based techniques for documentary knowledge and meaning? How can microphonic technology provide access to worlds above and below the human hearing capacity, and what are the aesthetic-perceptual consequences for contemporary non-fiction production in such a stretched audition? How can the acoustic territory of Peckham, defined by its own cultures and social relations (language, sounds, and music), emerge into sonic creative strategies to drive the production of a documentary film?

As the previous chapters elaborated my objectives, conceptual framework, and methods, in this section, a significant proportion of my critical reflection is concentrated on practical experiments. These sonic experiments are part of my ongoing investigation into the acoustic territory of Peckham's Rye Lane and the creative approaches to exploring modes of listening and recording in non-fiction film-making production. These experiments, titled Phase One and Phase Two, explore a series of sonic compositions applying different techniques and creative/critical motivations in producing *Notes on Listening*.

Phase One focuses on the simultaneity capacity of sound via sonic explorations beyond the visual drive/primacy of the camera frame, resulting in creative possibilities of exploring the sonic perspective and scale in the film-making and editing stages. In addition to the techniques applied, Phase One also articulates interrogating the visual-oriented dominance in the documentary discourse, attempting to creatively disorient dominant gazes through the "simultaneity capacity of sound" (Voegelin, 2019). These auditory experimentations were articulated in the initial stages of the filming and editing process, culminating later in the first film's act: *Entering the Acoustic Territory*.

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[11] 'Situated listening practices' involve how individuals interpret auditory experiences based on contexts influenced by the environment, culture, personal history, and social dynamics. It recognizes listening as an active, context-dependent process (Oliveros, 2015), studied in fields like sound studies, anthropology, and musicology to explore diverse perceptions and responses to sounds.

In Phase Two, I explore how recording technologies transport us into infra- and ultrasonic worlds via contemporary field recording techniques, aiming to 'grasp the inaudible' sounds captured below and above the human capacity of hearing (20 Hz–20 kHz). The intention is the creative exploration of sound's social and political dimensions and how they interact and influence the production of a "sensory documentary" (Casting-Taylor et al., 2015) about Peckham. Conceptually, "the politics of vibration" (Boom, 2022) provides a framework for the role sound and vibration play in creating and reinforcing cultural and social identities, as well as exploring ways the "materiality of sound" (for example, Birtwistle, 2017; Cox, 2011; Voegelin, 2019) can be creatively useful in recalibrating dominant power structures and aesthetics of the audiovisual experience in documentaries. These auditory experimentations were also articulated in the filming and editing process, leading to the second and third films' acts: *Acoustics of Resistance* and *Grasping the Inaudible.*

However, the initial experiments intended to follow the planned research process diagram were not 'effective' in its one-way direction, as the production of an unscripted non-fiction film demands organic encounters and decisions contingent on various choices. The proposed research process diagram (Diagram 1) did not follow a linear sequence or one-way orientation as initially designed. Indeed, the experiments, which combined listening practices, field recording, soundscape composition, visual shooting, and editing, were entangled and intertwined in an organic flow that demanded a generative approach (Diagram 2), often redirecting my research to some new theoretical explorations. As a result, the method was never linear but instead based on an interactive and chaotic process of constantly evaluating decisions through "the variants of reflection in practice" (Candy, 2020, p. 51). Nevertheless, since writing is not a generative and multisensory process and demands a linear sequence on its pages, the primary sonic experiments and their conceptual frameworks and findings are reflected upon in this chapter. The next chapter will examine the methods and techniques employed to structure the audiovisual footage and how the sound design was articulated throughout the process.

In summary, this chapter aims to articulate how sonic methods such as listening practices, creative field recording, and sonic compositions can challenge the traditional singularities of

visual representation and voices in documentary production to re-orient the role of sound when embedded critically in the film's process.

'Amplifying Ambience' as Critical Framework

Environmental Sounds

In film sound production, "a space within which the audience can be enveloped" (Sonnenschein, 2001, p. 47) is designed to evoke a cinematic reality of spatial perception on the screen. It is also referred to as 'ambience', or the atmospheric qualities of a given space, a term denoting the layers of background sonic components in the film's soundtrack, which form a palette of our auditory environment.

Nevertheless, ambient sounds can do more than just establish a 'cinematic reality' through a spatial and atmospheric sense of place crafted in post-production. For example, Walter Murch made evident the subjective power of sound to support a film's storytelling in *Apocalypse Now* (1979), by which we can get inside the character's mind by manipulating what and how we hear, transforming diegetic environmental sounds into extra-diegetic sonic effects or music. The blurred role of ambience and sound effects in film and media production has also been examined by film sound theorists such as Chion (1994), Doanne (1985), Sonnenschein (2001), and Rogers (2020). They have exhaustively focused on the ways the visual and auditory setting are melded together via synchresis, a classical term coined by Chion (1994), referring to the mental fusion of sound and visual when they occur at the same time, and the possible variants of the audiovisual relationship.

However, ambient sound as conceptual term has gained prominence in contemporary studies of sound in film and sound arts practice, aligning with what is referred to as "spatial turn" (Eisenberg, 2015). The term emphasises exploring and understanding spatial elements and perception in film-making, examining how sound design, ambience, and spatial qualities enhance immersion and the audience's sense of space within the narrative world. It is part of a broader academic discourse including concepts such as 'landscape turns' and 'spatial turns'

(Jo, 2011), which resonates in so many contemporary landscape documentaries (Pattison, 2018, online).

Chattopadhyay (2021) offers a fresh perspective on site-environmental sounds mediated in films and media production, crossing disciplinary boundaries between sound arts practice and film sound studies, going beyond audiovisual relationship studies. He explores the growing interaction between "film sound and field recording-based sound arts" (Chattopadhyay, 2017, p. 9). His fascination with the layered composition of sounds of nature and the environment led him to focus on the atmospheric presence of sounds in films and sonic media production in general. Moving in a different direction from audiovisual relationships drawn from Chion's seminal work, Chattopadhyay (2021) focused on the location and surrounding environment, investigating how ambience or ambient sound is used as a site-specific element to compose the ordinary setting onscreen. Shifting perspectives from music, voice, or even sound effects to the role of ambient sounds in film studies renders a unique perception during the production of films and sound artworks, which is comparatively examined in his work. In fact, he has been critical of the lack of attention given to the significance of listening and the environment around us and its mediation in film studies and, consequently, the 'exclusion' of the sound practitioner's artistic potential in film-making. He further argues that the powerful role of ambient sounds when mediated in films relies precisely on this background position (Chattopadhyay, 2021), which aims to support the film's narrative through 'presence' (Doane, 1985; Kramer, 1995; Skalski & Whitbred, 2010).

In film-making production, 'ambience' is technically referred to as 'background' or 'BG' or 'Atmos' on the soundtrack's postproduction (Digital Audio Workstation). It produces a perception of place, thus establishing a cinematic reality on the overall diegesis of the film. However, one may argue why are ambient film sounds located particularly in the background? Why is there such an absence of ambient sounds that go beyond establishing a sense of place and presence? Also, how does this background position reflect on the scholarly vacuum in film studies on the significance of sound and environment and its mediation onscreen?

The technical functionality, industrial norms, and regulations of layering ambient sounds are comprehensible "to produce a spatial realization of the presence of the site in the diegetic

world" (Chattopadhyay, 2017, p. 04). Thus, environmental sounds mixed in the background reflect technological and cultural motivations, such as the predominance of Dolby technology in the film industry and the development of noise reduction filters and artefacts in post-production to foreground the intelligible voice over other sounds. The structural function of ambience in the hierarchy of other predominant sounds of an overall soundtrack (dialogue, sound effects, music, foley), in fact, plays a fundamental role in not only defining a spatial perception of place in the filmic diegesis but also establishing the audiovisual anchor. Thus, without the subtle presence of ambience, the audiovisual relationship is broken by lapses of silence and auditory inconsistences.

However, I offer a counterargument here that the 'marginal' position of our environmental sounds – pushed to the background as a structural normative in film sound – seems problematic, especially in non-fiction film-making. In other words, the term 'ambience' carries strong historical and hierarchical symbology about where and how our sonic environment must be treated, located, and listened to with regards to other sounds, the visual frame, and the narrative in moving image works (Mazza, 2022).

As a sound artist, first, I have intensely worked on sonic art projects which aim to foreground our listening experiences and provide an opportunity to interrogate the visual and linguistic-oriented world we live in (Feld, 2015; Minh-ha, 1991; Voegelin, 2021). The concept that a particular auditory 'structure' must be maintained in a specific place is controversial and has been challenged by many sound theorists and practitioners outside the context of film studies (Cox, 2011; LaBelle, 2010; Lane, 2021; Thompson, 2004). As Cathy Lane (2021) clarifies: "If you are truly concentrating on the sound, it is no longer ambience" (online). I share this perspective as artists and scholars can constantly challenge normative listening habits and abilities embedded into cultural-hierarchical structures.

Robinson (2020) enacts a decolonial critique to consider listening from both Indigenous and settler colonial perspectives through a critical listening positionality, which "seeks to prompt questions regarding how we might become better attuned to the particular filters of race, class, gender, and ability that actively select and frame the moment of contact between listening body

and listened-to sound" (p. 11). In this positionality, we can listen attentively and establish critical listening beyond the unconscious perception of a 'normative' sonic atmosphere.

The hierarchical structure of listening in film-making practice is not only sustained by technological motivations such as Dolby systems and normative standards of the 'intelligible voice' in film sounds but also carries colonial legacies and precedents sustained and reflected through the visual-centric history of photography and documentary. "The empire of photography", as André Rouillé called it, "traces the evidential trajectory of the "new" visual regime, created by the rise of photography in the bourgeois, industrial, and colonial cultural system in the mid-nineteenth century" (Documentary Genealogies – 1848–1917, Reina Sofia Museum). This 'new' visual code, motived by the development of photography, was the trigger point for the unfolding emancipatory impulse for the rise of documentary discourse in 1920, defined by its representational interests and gazes. However, the democratic promise of photography remained unsatisfied for over a century, "remaining an instrument in the hands of bourgeois culture and its means of representing subaltern identities – workers, servants, proletarians, beggars, the deprived" (Documentary Genealogies – 1848–1917, Reina Sofia Museum). As it is not my purpose to cover the intricate historical background of photography's influence on documentaries, I will revert to our current inquiry.

The sound artist and theorist Kim-Cohen (2013), in his book *Against Ambience*, challenged the art world's recent fascination with 'ambience', arguing that the contemporary contexts of sound art exhibition lack critical and conceptual rigours in preference for the atmospheric aesthetic prevailing in sonic environments. Without a deeper exploration of social and ecological relations, the prevailing trend of creating abstract sonic environments for atmospheric purposes lacks a sense of positionality and overlooks the importance of considering one's position and perspective concerning the broader context. Therefore, limiting the critical engagement and meaningful understanding of the sound, environment, and the social (Kim-Cohen, 2013; LaBelle, 2010; Voegelin, 2019; Wright, 2022). Brian Eno's ambient music is an example of how the lack of harmony and rhythm, intended to add a sonic layer to the environment, lacks any aspect of "positionality" (Robinson, 2020), inherent in the concept of 'ambience'. This seems contrary to the focus of my research, which is to delve into our

critical listening attention. When examining the sonic ecosystem of non-fiction films, the term 'ambience' becomes a critical concern in my studies.

Even though later perspectives by Eno (1978), Kim-Cohen (2013), and Robinson (2020) do not consider environmental sound in any film or media production to establish a sense of presence and embodiment, they are critically relevant to my research as a way of thinking through sound in non-fiction film-making. In this framework, I propose destabilising the traditional role of 'ambience', which is culturally designed in post-production to establish an atmospheric sense of place. The goal is to enhance ambient sounds as alternative "ways of knowing" (Feld, 1996) and sensory registers beyond the passive visual supporter devalued by "vococentrism" (Chion, 1996) in audiovisual media. My research thus aims to creatively explore the aesthetical-political consequences of sound and place in documentary production. Here, I formulated the term 'amplifying ambience' as a critical framework to produce my documentary film, aiming to intricately interweave the nuances of both auditory aesthetics and socio-political dynamics. This conceptual framework serves to facilitate an exploration of the intricate interplay between sound, narrative, and documentary discourse, thereby enriching the engagement with the poetics and politics inherent in the act of listening. Foregrounding ambience from the background would also challenge logo-centric forms of knowledge and meaning entrenched in documentary production (Munro, 2019; Nash, 2021; Rangan, 2017). This approach involves tunning the attention towards environmental sounds and textures, thus positioning them as testimonial and perceptual material within non-fiction media.

When the Voice Slips

As discussed in the contextual review - Chapter 1, the issues with the documentary voice lie in the propensity to understand language exclusively as meaning, which is grounded on logocentric notions of objectivity, scientific truth, and authenticity of the discursive voice (Minh-Ha, 1994; Munro, 2019; Rangan, 2017).

The film-maker and postcolonial scholar Trinh T. Minh-ha has been at the forefront of discussion on this subject. The idea of 'giving voice' to subjects historically falls under the Western ethnographic gaze. As Minh-ha (1994) reinforces, "The imperative to produce meaning' or 'the rational communication with its normalised filmic codes through objectivist,

deterministic-scientific discourse" (p. 88) is still submerged in contemporary mainstream documentaries. The urgency or pressing desire to generate and communicate significance or intelligibility in a particular context refers to the use of standard, traditional forms of language to transmit information in a logical, understandable manner, thereby overlooking the sensory intricacies and perceptual nuances inherent in the auditory world. Thus, different divisions among the three elements of language (spoken, voice-over, or oral testimony), noises (sound effects), and music, often used as signifying components to assist the audience in comprehending the storyline, have been formed in the development of a movie soundtrack. As Minh-Ha reflects, "Language is consumed exclusively as meaning, noises are reproduced mainly for the informative power, and music is tailored to fit the film's action" (p. 203). Consequently, there is no room for silence or other creative use of sounds in this normative structure of meaning in the media assemblage.

Minh-ha seems to be searching for sounds that escape the documentary categories of voice, sound effects, and music – the "grain, tone, inflexions, pauses, silences, repetitions" (p. 60), referring to these sonic spaces in between as "the holes in the sound wall" (p. 201). Therefore, my research has concentrated on these gaps in the 'sound wall' of non-fiction film-making in an attempt to address and recalibrate them. As Wright (2022) reflects, "It is in the spaces in between the media assemblage (pre and post) that agency and perspectives might therefore emerge and mix" (2022, p. 85). Proposing that field recording practice may be a useful creative strategy to fill up "the holes in the sound wall", Wright suggests, "It is neither voice, effects, nor music, but something in between; it makes a home for itself in the lacunas of the conventional documentary" (p. 85). Therefore, 'amplifying ambience' might be a valuable creative strategy to access and foreground sound's porous and ephemeral qualities to fill up the holes in the sonic landscape traditions of the documentary form.

However, using 'amplify ambience' as a critical framework, I do not intend to raise the volume on the post (mixing stage) to induce ambient sounds to be louder in the foreground. The term does not refer to the quantification of decibels, a literal measurement of sound. Instead, 'amplification' is used metaphorically to encourage a broader perspective on the reach and impact of sound. The intention is to draw attention to the expansive and intangible nature of sound, including its vibrational qualities and density that are not always readily apparent,

seeking to move beyond sound's typical role as a mere atmospheric or representational element in non-fiction media and exploring its potential to actively shape our experiences and understanding of the world (Voegelin, 2022). By emphasising the simultaneity of all sounds, this approach acknowledges the potential of even seemingly insignificant sounds to contribute meaningfully to our experience of a given environment or moment.

In consonance with the methodology, if ambient sounds emerge from the complex environmental and cultural relationships grounded on space–time – "the co-dependence of its vibrations where things meet each other" (Voegelin, 2022, p. 43) – I propose they cannot be disassociated from their referentiality for an aesthetic proposition only or in submission to the hierarchal 'voice'. Instead, these sonic landscapes will be incorporated into the creative process while retaining their social-cultural anchors with the subject matter – in my project, the acoustic territory of Peckham's Rye Lane, southeast London.

Practice Reflection

Sonic Experiments, Phase One: Simultaneity of Sound

> *08/02/2022*
>
> *The line separating Peckham's public and private spaces is fuzzier due to sidewalk acoustics porosity. A polyphone of everyday sonic act: multiple languages, music and noises, memories, desires, struggles and faith expanding and re-mixing into the streets and reverberating into other buildings and bodies*
>
> — Mazza, 2021, Listening Diary

Figure 8: Rye Lane, Mazza (2022).

In documentary film-making, one can argue: How can accessing the sonic environment through listening, field recording, and sonic composition foster critical and creative methodologies that transcend the conventional reliance on visual- and language-based techniques for documentary knowledge and meaning?

Basing my research in one particular area, Rye Lane in Peckham – a neighbourhood in southeast London, UK – was a manageable way to maintain a practical focus on this project. The first series of experiments initially explored the concept of sound mapping[12] as an experimental tool outside the ideas of representation. However, it also aspired to reflect upon what it means to listen critically to our environment using different sound recording technologies and techniques and how the world's sonic experiences may be encountered at the intersection of the audible and inaudible in the art of non-fiction film-making.

The compositions, as part of Phase One and Phase Two experiments, began with an attempt to materialise my listening experiences. Thus, applying the elements of my listening protocol (see appendix A) and in accordance with the creative research process diagram - Diagram **2**, I spent a few months just listening to the place and applying techniques from Pauline Olivero's *Deep Listening*,[13] which produced a series of soundwalks[14] combined with a listening diary (autoethnography). In the first instance, I established a series of sound marks (Peckham Sonic Mapping) in an effort to trace, artistically, the sonic culture of Rye Lane.

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[12] The term "sound mapping" has found its way across disciplines and practices. Scholars, researchers, and practitioners from sound studies, urban planning, and geography have all added to its evolution. This term describes the art of recording, analysing, and visualising soundscapes within a specific environment or geographical area. Schafer's groundbreaking publication in 1994, "The Soundscape: Our Sonic Environment and the Tuning of the World," played a key role in expanding our comprehension of soundscapes and, subsequently, sound mapping concepts and practices.

[13] Deep listening is a term developed by the composer Pauline Oliveros, which involves "a practice that is intended to heighten and expand the consciousness of sound in as many dimensions of awareness and attentional dynamics as humanly possible" (Oliveros, 2005, p. xxiii).

[14] The term 'soundwalk' refers to combining walking, listening, and reflecting about a range of purposes related to sonic perception and the space (Behrendt, 2018).
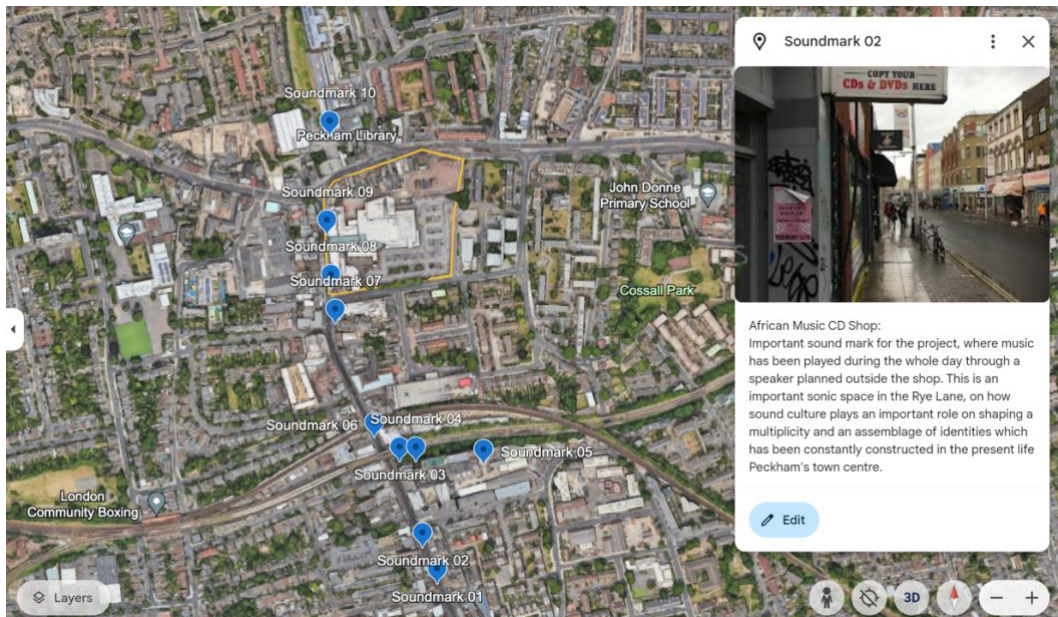
Figure 9: Listening Studies: Rye Lane Sound Marks (Mazza, 2022).

My attempts to organise sound through a specific and located mapping process were constantly undermined by the physical and permeable nature of sonic events. It means that sound flows through and beyond solid limits: constantly disrupting, generating, and reorganising the geographical acoustic space. During the recording at these aural situations, my search parameters and decisions about the geographical location were constantly shifting: How could I consider one site and its social, cultural, and physical domains while I rejected another place? What are the selection criteria? What is the limitation of these selections?

Although these initial sonic studies and recordings were physically linked to designated and mapped areas established by my initial studies, reflecting on those questions reoriented my listening as a performative act of movement. In other words, instead of concentrating on fixed positions in the acoustic space, I started to explore a series of soundwalk techniques with

binaural[15] microphones. During this process of listening and recording, which also involved a process of "creative reflection" (Candy, 2020), I realised that those sonic markers were not an attempt to catalogue or analyse a sonic cartography based on visual mapping or any type of sonic categorisation. Instead, they were reflections of my intersubjective listening perspectives, i.e., an autoethnographic approach.

My experiments, notes, and reflective approach were more oriented toward Voegelin's (2019) notion of "geographies of sound" as a counter-narrative to a conventional sonic geography and soundscape research based on sound maps and frequency measurements. As she suggests: "A geography of sound has no maps; it produces no cartography" (p. 76). The piece was inspired by these subjective interactions of trajectories and interconnections with an acoustic territory in which "textures and rhythms can't be measured" (Voegelin, 2019, p. 76). Instead, they are aural fragments that generate passages across various social and cultural dynamics at Rye Lane, in which the acoustic atmosphere is constantly reconfigured.

In this geography of Peckham, we hear music and textures, rhythms and vibrations, movements and stillness, which produce the "invisible slices of the actual world" (Voegelin, 2019, p. 77). Recording and composing with these audible fragments, which are not reducible to their dimensions, classifications, or role over noise pollution measurements, have led to a distinct idea of an intangible geography, by producing a space where the poetics and politics of the acoustic territory can be amplified, reframed, and mediated as fragments of this world and its shifting dynamics. These sound worlds, however, are not parallel worlds, fictional fabrications, or illusions, but rather "variants of our actual reality" (Voegelin, 2019). They are the visible and invisible territories of Peckham – its immaterial things and unseen activities. For example, in the case of Peckham, sound worlds might include the bustling energy of a

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[15] Binaural represents a category of microphone setup intended to capture sound in a manner that mimics human hearing. They consist of two microphones placed in a configuration resembling the placement of human ears. This positioning allows the microphones to capture sound from different angles and distances, creating a three-dimensional stereo effect when listened to with headphones. Binaural microphones aim to replicate the immersive experience of sound as perceived by the listener, providing a more realistic and spatial audio recording.

crowded street, the ambient hum of all types of machinery and rails, or the hushed whispers of people in private conversations, which can shape our experience of a place, even if we are unaware of them.

Thus, in this initial series of sonic investigation, it became evident that I was searching for my positionalities of listening operated as a performative act of movement. Or as Schulze (2016, online) states in his lecture:

> "In performing you take new and different, exploratory and analytical, disruptive or harmonizing actions. You provoke new situated events; you generate dissent and consent, ruptures and new experiences, new conclusions and new unfolded claims. Finally, you go for transmitting."

In this performative act of movement, I navigated the streets of Peckham – technically speaking, freely – using binaural microphones. Listening became an idiosyncratic method of strategy for documentary film-making production. From this initial stage of my research, I began to realise that different strategies of listening, recording, and composing with the sonic material may produce, as Voegelin (2019) suggests, "a true polyphony that follows no hierarchy and creates no unity but resonates the complex particularity of the situation" (p. 25). As a consequence, the potential to embrace sound provides not only channels of identity, representation, and actuality but also includes an expanded and simultaneous possibility of accessing 'reality' beyond and 'in-between' our visual-logocentric Western paradigm. These initial experiments marked the commencement of my methodological strategy for the film research project, laying the foundation for delving into sonic thinking throughout the film-making process.

Play: *(In)Audition 1*: A Sonic Journey Through Peckham

This is a sample of a sound piece produced as part of Sonic Experiment Phase One, in which I attempt to inform possible sensory narrative strategies by extending auditory sensibility from the documentary's conception to the editorial process.

This soundscape composition is a fusion of real and cinematic time, a sound journey employing excerpts from lengthy recorded takes (a single shot in motion) using a range of microphones

such as binaural, directional, and stereo. In summary, binaural microphones provide a three-dimensional sound experience resembling human hearing, directional microphones capture sound from a specific direction while minimising background noise, and stereo microphones create spatial positioning and depth through left-right x-axis separation. Thus, these diverse microphone types, firstly, function like camera lenses, enabling the exploration of sonic perspective and delivering a range of audio material for post-production work on the film. Secondly, capture, edit, and amplify sounds from environments, working not only to create immersive multisensory experiences but also to 'materialise' my listening experience.

In this particular soundscape composition, the intention was to not only search for potential narratives for my project by extending sonic thinking and sensibilities throughout the film-making process but also to immerse the listener in a sensory experience that draws their attention towards the surrounding environment. This spatial sound intention, focused on the arrangement of sounds within a three-dimensional sonic environment and the surrounding space encompassing it (Hilman, 2021), will resonate in various creative and critical possibilities regarding the sound design and re-recording mix techniques employed in *Notes on Listening*, which will be explored in Chapter 4.

By using binaural recording on acts of movement, the listener's ability to locate the auditory journey logically is disrupted, leading to a sense of being adrift. In other words, this is in line with the concept of "delocalisation" (Augoyard & Torgue, 2006), which emphasises the ability of sound to diffuse and occupy a space beyond the visual perception. This recording and sound design technique extends the sonic environment beyond what is visually perceivable, positioning the listener within this expanded soundscape. This is achieved by utilising the peripheries of visual ability and leveraging the "diffuse capacity of sound", as outlined by Augoyard and Torgue (2006).

This creative acoustic inquiry and intention has shaped the filming and editing process, to be discussed in Chapter 4, which involved a continuous dialogue between the collaborators engaged in the documentary's production from different professional perspectives: a sound artist (myself), a cinematographer, and a film editor. The piece, *(In)Audition 1*, and the footage material were submitted to the film's editor, who used the sonic material as a creative catalyst

for testing and experimenting with possible narratives of the documentary. This collaboration allowed for a more holistic and integrated approach to the creative inquiry (Boehm, 2021), with sound as a driving force behind the project's development.

Reflecting on Findings and the Filming Process

Although different types of microphones were utilised in the recording process, as previously mentioned, the in-ear binaural method constituted the primary field-based soundscape recording for the Phase One experiment. It is relevant to discuss the significance of the binaural method here: binaural recording offers an immersive aesthetic possibility, which has inspired certain creative and conceptual decisions in my studies. Furthermore, binaural mics can be used in the ears and permit freedom of movement in both situations within a film-making context or for field recording. Binaural recording thus allows for the articulation of field recording activity, where the creative and 'performative' aspects of the recordist may be expressed through movements and presence, via a unique perspective of human perception of sound (Barnard, 2010).

At the first stage of shooting for the documentary, the concepts of 'perspective and scale' facilitated a significant breakthrough, in which the simultaneous capability of sound could be explored in the context of non-fiction film-making thanks to the exploration of binaural technology. Two techniques of filming were applied here:

1. Long takes with the mobile camera (go-pro) were taken with the sound in sync. However, exploring binaural recording methods destabilises the sonic perspective in relation to the camera (diegetic sounds). It offers an immersive and spatial sonic perspective outside of the visual frame and explores the simultaneity of sound in the camera shooting process.
2. Long stationary shots were captured with a static camera while the sound was recorded simultaneously but detached from its visual counterpart. Essentially, the sound was captured at the same take as the visual footage, allowing for exploring sonic perspectives in movements that extend beyond the limitations of stationary shots or the

visual frame.

However, since binaural reproduction typically requires headphones, the method has encountered some resistance in film-making, becoming less effective in standard cinema theatres equipped with surround sound systems or Dolby Atmos. Chapter 4 will delve into the dynamics, challenges, and solutions associated with binaural recording and reproduction in the context of film-making. This exploration will specifically focus on the sound design and re-recording mix. Consequently, during the post-production phase and in collaboration with a sound re-recording mixer, a solution was devised to organise the film's sound mixing in Dolby Atmos format, which was then downscaled to two audio deliverables: a stereo binaural mix optimised for headphone, and a 5.1 mix tailored for cinema theatre screening.

However, the production of an unscripted non-fiction film demands organic encounters and decisions contingent on various choices. Therefore, at this stage, I realised that the proposed research process diagram did not follow a linear sequence or one-way orientation as initially designed. Indeed, the experiments, which combined listening practices, field recording, soundscape composition, visual shooting, and editing, were entangled and intertwined in an organic flow that demanded a generative approach. The method was never linear, but rather based on an interactive process of decisions constantly being evaluated by the partitioners involved in the project through "the variants of reflection in practice" (Candy, 2020, p. 51). For example, the listening practices triggered visual ideas for shooting, and edited scenes redirected us to return to a location and record new sounds, further affecting editorial decisions. As a result, the research process diagram proposed would now be adjusted as a generative rather than a formulaic method, which invites continuous empirical experimentation and interdisciplinary discussion:
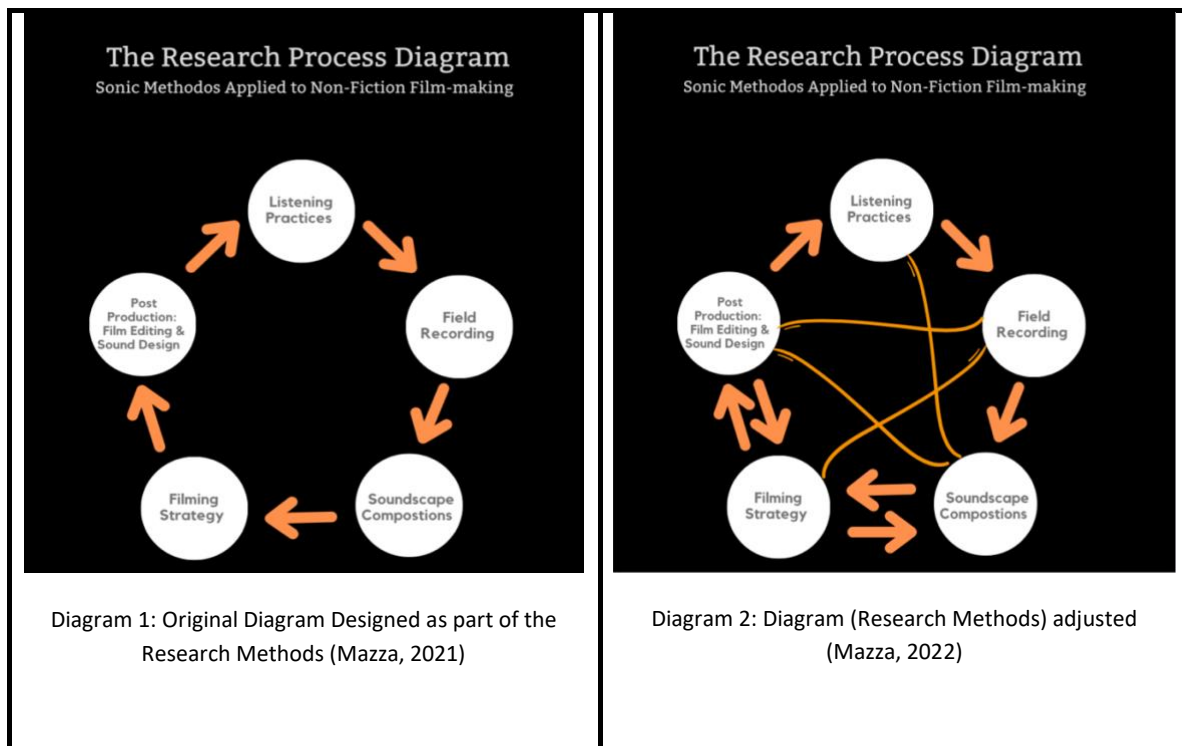
Figure 10: Research Method Diagram – Original and Updated (Mazza, 2022).

Another example of similar unpredictability is in the two different approaches adopted for sonic composition in *(In)Audition 1*, which involved combining free-from-camera field recordings with additional audio gathered during the shooting process. The possibility of experimenting with sound recording choreographed with a cinematographer enabled me to expand and transcend my movements and intentions beyond the visual frame. Investigating the notions of perspective was among the early breakthroughs in this approach, by untethering myself from the camera's gaze, especially during stationary shooting scenes.

In other words, I could move around the scene to record sounds acoustematically, or in reference to the use of 'off-screen sound' (Chion, 1996). Furthermore, this approach provided creative opportunities for expanding the auditory world, in which auditory movements outside its selective frame could contradict the static visual frame. By employing immersive audio recording (binaural recording) as a primary technique for shooting, I could critically and artistically explore notions of shifting perspective and scale of the sonic environment

concerning what can be seen by the camera lens in a shooting situation, free from the camera's gaze. Thus, the combination of field recording experiments and techniques in choreography or not with the camera and cinematographer prompted me to consider the simultaneous capacity of sound.

Simply put, Phase One Experiment was critical in establishing a series of audiovisual explorations in which ideas of scale, perspective, and the simultaneous capacity of sound could be expanded in the shooting and editing process. The methods and strategies of articulating sonic knowledge into the audiovisual narrative via film editing and post-sound design will be examined next in Chapter 4.

Sonic Experiments: Phase Two

Unheard

> *I see that I've never told you how I listen to music – I gently rest my hand on the record player and my hand vibrates, sending waves through my whole body; and I listen to the electricity of the vibrations, the last substractum of reality's realm, and the world trembles inside my hand.*
>
> — Clarisse Lispector, 2012 [1973], p. 05

Moving on from Phase One experiment, I consider how recording technologies move us into infra- and ultrasonic worlds, accessed by unconventional modes of capture and microphones, to answer the questions: How can creative field recording and microphonic technology provide access to worlds above and below the human hearing capacity, and what are the aesthetic-political consequences for non-fiction artworks in such a stretched audition?

This series of field recordings were partly developed from ideas explored while utilising non-conventional recording techniques and types of microphones, such as contact microphones and electromagnetic receiver, to access what's beyond our human capacity to hear and perceive reality. In other words, extending listening beyond the human range – inaudible frequencies, vibrations, and resonances below and above human hearing capacity (20 Hz–20

kHz). Instead of turning air pressure changes into an audio signal, these microphones capture the abstraction and unseen aspects of inaudible sounds.

A contact microphone is a microphone designed to pick up vibrations and sounds from solid objects and surfaces by being physically attached to the object or surface and thus directly capturing the vibration or sound it produces. Electromagnetic microphones use electromagnetic induction, with a wire coil suspended in a magnetic field and attached to a diaphragm. Sound waves vibrate the diaphragm, changing the magnetic field and inducing an electrical signal in the coil. Processing this electrical signal yields the original sound. Although this microphone is uncommon and is generally used in scientific research and seismology, it has grown in popularity in sound arts practices due to the creative possibilities they offer in sonic compositions, installations, and audiovisual works to capture a broad spectrum of sounds beyond human hearing capacity.

But why are these inaudible frequencies and vibrations relevant to film-making? Here, one may argue these technologies enable sound partitioners to work creatively with sonic textures to produce atmospheres and sound effects for a film soundtrack, where "micro-acoustic sounds are thus converted into large-scale effects" (Wright, 2022, p. 93). However, my purpose in experimenting with these recording techniques and technology extends beyond purely aesthetic concerns and it is, in fact, attempting to recalibrate the visual and linguistic predominance into a shared perceptual field, or "one that advocates recording and listening to environmental sounds as part of a critical recording practice" (Wright, 2022, p. 81). In that sense, for the Phase Two experiment series, I am interested in what Wright (2022, p. 113) terms "plurality of signals", in which the acoustic territory "becomes anything and everything" (Wright, p. 93) from places, infrastructures, types of machinery, non-human life forms to the interaction and reverberations with the dynamics of a specific community. Thus, sound practitioners can listen to world's inaccessible or out-of-audible ranges using different microphone technologies, by a plurality of signals that can be incorporated as a possibility for "an expanded documentary approach across senses and media" (Wright, p. 112).

This approach shifts the traditional observational mode of documentary to a critical mode of participation (Wright, 2022), where "experiential knowledge" (Castaing-Taylor, 2015; Feld,

1992; MacDonald, 2015), which is embodied and situated in the field encounter, can be expanded through editing processes. Listening in the urban spaces of Peckham's Rye Lane: sidewalks, streets, local shops, churches, music, infrastructures, and waves in the air (radio frequencies), becomes a sonic method of the sensory register when sound partitioners can generate 'new data' from the site "through their presence and movements, edits and cuts" (Wright, 2022, p. 112). Such methods and approaches demand a shift from the ocular centrism and verbal communication predominant in the documentary form into a sonic world requiring sensibilities to expand listening into the real and imagined worlds mediated by technology. In some ways, my film project is a form of a 'sensory documentary'. Like Minh-ha, Castaing Taylor, and Cox & Carlyle, this 'sensory mode' of documentary, as already explored in chapter 1, stays away from the conventional voice-over or classic 'talking head' style, proposing a non-conventional narrative that emerges "as part of the event experience rather than the subject-object loop" (Wright, 2022, p. 88). Consequently, the film-maker participates in the construction and representation of place to reimagine non-fiction film-making by disorienting observational gazes and objective voices/commentaries through personal experiences.

In this framework, therefore, sonic thinking and sensibilities can play a crucial role in accommodating the multiple realities and sonic agencies that generate the place, thus reducing the film-maker–subject distance. Therefore, situated listening and creative field recording enable the formation of "multiple points of view" (Wright, 2022) without the need for spoken language. However, this critical and sensory approach to documentary film-making "makes it challenging to reduce the film to a single subject" (Wright, p. 88) due to the limitless possibilities of auditory settings penetrating the visual component. In these multiple viewpoints generated by performative acts of listening and field recording, everything and anything can be deemed a subject, hence, a challenge to creating an objective structural narrative. Would my film project be about Peckham's culture? The local neighbourhoods? Gentrification? Myself? In Chapter 4, I will elaborate further on the narrative structure of the project.

Nevertheless, *Notes on Listening* does not intend to promote sonic centrism via abstract sonic compositions. Enveloped by the multiple possibilities of representation or detached from it into a compositional process, sound centrism, like any media framing, veers dangerously toward aesthetic voyeurism or textural sonic abstraction (Cusak, 2017; Wright, 2022). In this regard,

my research alerted me of the "aesthetic dangers of representing sites solely through sound" (Cusak, 2017, online), especially in the context of non-fiction media. Ethical concerns also arise when sound is extracted from its social-political context and exploited as a sonic object for compositional purposes, as already reflected in Chapter 2. Instead, my investigation into the sonic landscape of documentary film suggests a multimodal approach concentrating on sound as a primary material, supported by text, imagery, and the film editing process, though not necessarily following this specific sequence. That is, the sonic experimentation's abstract qualities are rooted in Rye Lane's social-cultural contexts, which will then be anchored and reconnected by the audiovisual structure. They are ways of exploring sonic knowledge, which is "framed through acoustics and experience" (Wright, 2022, p. 84) as integral to the film project as a whole.

Phase Two sonic experimentations have two main objectives: grasping the inaudible sonic vibrations of the place by expanding our limited capacity to perceive 'reality' and articulating it into creative strategies for the film-making process and sound design. Therefore, investigating the sensory edge of sound brings one close to the magnitude of edge of feeling: Sometimes it is so quiet it is challenging to discern if the sonic piece is producing any sound or if what you hear is simply the soundscape around you and your body's slight vibrations. Occasionally, the sound becomes intense. The resulting sonic piece combines various recordings from the experiments to produce a more extended listening experience, which move across a "plurality of signals" from infrastructures to community dynamics and non-human encounters.

The piece given next, which I call *(In)Audition 2*, focused on important buildings preserved from demolition (such as Peckham Levels and the Bursey Building), new construction sites, types of machinery, electric cables, rail noises, sidewalks, and other infrastructural vibrations. I was interested in exploring infrastructures and their vibrations and resonances, triggering ideas for visual shooting and sound design.

Play: *(In)Audition 2*: Infrastructure, Vibrations & Resonances

By encouraging an apparent suspension of time through slow-developing soundscapes, temporal structures, and the absence of visual or linguistic cues, the piece encourages a form of critical and slow listening. It is critical because they are not just fragments of abstract

compositions. Instead, they invite the listeners to hear acoustic differences – not subtracted from their referential context – while recognising that someone, someplace, designed the journey you are experiencing. It is slow due to the durational quality of the listening experience, difficult to achieve in the established fast temporality of audiovisual scenes, editing, cuts. Thus, the composed atmosphere, often contrasted by the hustle, noise and chaotic dynamics of the streets represented visually through the film editing, invites a meditative state of mind, aimed at opening spaces for interpretations when combined with the visual element, shifting from "casual" to "reduced" listening (Chion, 1996) and filling up spaces in between modes of listening[16].

Vibration

The third sound composition, *(In)Audition 3*, is also part of the Phase Two of experiments, exploring and incorporating recordings of social and cultural aspects of the place. In addition, it concentrates on the "vibrational power via music" (Boon, 2022, p. 2), which is constantly transmitted over the streets of Peckham via loudspeakers, underground parties, radio broadcasting, churches, street market, shops, and public squares. However, which conceptual frameworks might sustain vibratory listening cultures while investigating Peckham's acoustic territory?

Although Goodman (2009) is recognised as a critical reference for the study of sonic cultures and vibrational ontology, in general, it is not my primary source of motivation. Goodman's publication predates the contemporary resurgence of Black studies, so there is an absence of information on the importance of sound, music and vibration and its various dimensions in Black lives. In addition, Goodman's research of vibratory ontology is centred on a study of the political ecology of fear and how modern sound cultures (especially the UK dance scene) appropriated warfare technology to motivate a community and turned dread into joy.

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[16] Chapter 4 will unpack the intricate interplay between the sonic experiments, the film's sound design, and the exploration of various modes of listening in relation to the audio-visual relationship.

For the context of practice research, I am more inclined toward what Boon (2022) defines as vibration, "a mathematical and physical concept, a religious or ontological force, and a phycological/psychoanalytic determinant of subjectivity" (p. 3). He continues: "The organisation of sonic vibration that is determinant of subjectivity, aka music or soundscapes, is understood to be pluralistic and modal" (p. 3). In his book *The Politics of Vibration: Music as a Cosmopolitical Practice*, Boon rearticulates the concept of vibration as 'a cosmopolitical practice', exploring the cultural, social, and political dimensions of sound, music and vibration and how they interact and influence each other on a global scale.

This concept encompasses how sound and vibration shape our experiences and relationships with the world around us and how they can be used to create social and political connections or reinforce power structures and inequalities, highlighting the role that sound, music, and vibration play in creating and reinforcing cultural and social identities and how they can be used to contest, subvert, or resist dominant power structures (Boon, 2022). Within this contextual framework, experiments of Phase Two were motivated by how 'politics of vibration' creates a sense of connection and shared experience across cultures and communities via sound and music. Music is not limited to any particular genre or style of music but can be found in a wide range of musical practices that bring people together and create a sense of collective energy.

Thus, experimenting with high and low frequencies when applying equaliser filters – removing and selecting specific frequency ranges – implies a creative approach and a critical intention. Therefore, the following questions were part of the film's research and conception: What does exploring low-frequency cultures in the context of Peckham's Street mean? Which frequencies will be muted as a consequence of the new 'regeneration' projects developing fast around Peckham? How will the place sound in the future? It was not my intention to address them in the written thesis, but rather in the film process itself – through recording, editing, and post-production. From these particular frames, the following sonic piece aimed to expand the acoustic territory of Peckham toward its sociocultural frequencies via creative sound design techniques, where sonic knowledge and practices were embedded into the film-making process.

A quote from my field notes on 25th January 2022 (Mazza, 2021, Listening Diary):

> "I enter an acoustic space that constantly changes. A sonorous picture encompassing a mixture of artificial, mechanical, and natural sounds pushing and tugging at each other, turning into a generative urban soundscape heard from the streets of Peckham. A superimposition of sound incidents that flow into a continuous vibration of frequencies; background becoming foreground and back again, in a shifting energy of amplification and breakdowns that move in and out throughout waves in the air, vibrations on surfaces."

Play: *(In)Audition 3*: Frequencies of Diversity

Peckham is a hybrid multi-layered community area formed by multiple identities and social classes and famous for many artists who live and work there. Yet, Hewison (2022) reflects: "As investigated, it became clear that a lot more people than artists live in Peckham, and their lives have not been easy" (Preface). The history and politics of Peckham are inherently complex, including an expressive migration after World War II until recent times of Caribbeans, especially Jamaicans from the 1950s, the first wave of Nigerians, who settled in Peckham in the 1970s and 1980s, as well as other people from West African countries such as Ghana, Senegal, and Burkina Faso, and more recently, people from all around the world (Hewison, 2022). One can argue that the Afro-Caribbean community and immigration from various African countries have shaped the region's cultural identities, as Black music and cultures constitute a significant spectrum of Peckham's character, mixed and amalgamated with other multiple identities: "Black music forms have conveyed a range technique of listening, and of exploring space via sound" (Chude-Sokei, 2022, online presentation).

Consequently, low-frequency sound systems, often known as bass-heavy or 'bass-oriented' sound systems, employed in Jamaican street parties and other cultural events, play (and still play) a significant role in Peckham's music scene. In the context of Reggae/Dub sound systems, sharing music in collective public spaces typically emphasises reproducing low-frequency sounds through bass and drums, which are often designed with large subwoofers and high-powered amplifiers for such sounds, thus creating an immersive, high-energy atmosphere for listeners, where music constantly reshapes the place: "By projecting music out into the air, we have an impact on the world around us" (Boon, 2022, p. 22). Henrique (2011)

argues that these shared listening experiences constitute a set of practices that establish a sound-centred scene, subculture, or community. He concentrates on the link between the material/equipment, the body, and the sociocultural context constituting these sonic practices. Peckham, therefore, incorporates an acoustically multiple set of practices, which includes continuously and organically mixing music, pirate radio stations, and other infrastructural vibrations in their urban environs, resulting in constantly changing and involving vibratory collective spaces.

This sonic materiality of Rye Lane also vibrates to my idiosyncratic position, which can be expanded into a broader social-political dimension. Peckham is one of the few areas in London that, in some respects, has been resistive to the continuous 'regeneration' or, from the local community's perspective, gentrification programmes rapidly spreading throughout the city (Conn, 2022, interview). As a Peckham resident and researcher – when just starting my PhD and the documentary film project – I was intrigued about 'who' was driving this community engagement and activism and 'how' they strove to defend the place and its identity from community displacement and demolitions. This prompted me to explore and reflect on the subsequent series of sonic experiments now focused on investigating how the acoustic environment of Peckham can function as a form of 'acoustic resistance' with its symbolic and poetic significance.

Acoustics of Resistance

> *When the hipsters take selfies*
> *On the corner where our*
> *Friends died; the rent goes up.*

— Caleb Femi (2020), On Magic/Violence, 'Poor'

As part of the research process for producing a short 'sensory' documentary film, I engaged and volunteered in a few local community groups, including Peckham Vision and Aylesham Community Action (ACA). The goals of these two organisations are similar: they both want to articulate community engagement and provide collective settings for reflection and action where people can shape Peckham's future. Therefore, my interests in grassroots activities were much more focused on balancing community activism with the "urgent necessity of

communicating places and sounds" (Wright, 2022) on the edge of gentrification, displacement, and disappearance. I was interested in how Peckham High Streets' sonic vibrations constitute a form of acoustic resistance that can be expressed spontaneously – through the relationship between place, sound, and identities – into a broader social-political resonance (LaBelle, 2010). This 'vibratory system' creates a space of collective interactions in which the site becomes a collective creation "reflecting working-class experience, self-directed, resistant to corporatisation and framed by its illegal transmission" (Hewison, 2022, p. 202). Through listening, we become a part of this sonic urban environment generated by the culture of reggae sound systems, radio pirates, grime, electronic music, gospel, and music played out from shops/street markets reverberating through the streets of Peckham town centre.

Thus, this speculative idea of acoustic resistance triggered my creative intentions oriented by the sonic experiments, investigation, and findings, leading to the question: How can this site of resistance, defined by its own cultures and social relations (language, sounds, and music), emerge into a creative strategy to produce the documentary film? To answer this question, 'amplifying ambience' as a critical framework for integrating sonic thinking and sensitivities into the documentary filming process requires paying attention to a social-political sphere. At this point in my practice research, one thing has become evident: integrating creative methods of sound design within the framework of my research will always be associated with contextual and critical intention of always embracing the location's complicated social and cultural reality and using it as a framework for the auditory setting. Creatively, as demonstrated in audio track titled *(In)Audition 3*, the selection and exclusion of a specific frequency range and the application of low-level white and pink noise, which are often used to mask other sounds in a soundscape, paradoxically aimed to make the overall noise levels appear subjectively quieter. Critically, it speculated how Peckham might sound in the near future, as a consequence of the new regeneration projects planned "vertically – without any efficient community participation" (Conn, 2022, interview) by the council and corporations.

In that sense, the sonic piece explored the creative and critical effect of suppressing or accentuating specific frequencies of Rye Lane in the context of community displacement and urban revitalisation. When this technique of removing or filtering frequencies is anchored with the visual reference (camera shooting), a productive tension between the present moment

(experienced visually onscreen) and the speculative future of Peckham's high street (experienced through sound design) is established in a conflicted temporal state in the audiovisual narrative. One is situated on the testimony of the present moment, and the other, sounds, escapes from the visual frame to speculate and sculpt poetically the future Peckham through its sonic landscape. As a result, creative shifts between documentary form and a more poetic register can emerge.

Working with these audio recordings and editing experiments as part of Phase Two experiments led to critical insights into film-making (cinematography, film editing, and sound design), which were also an opportunity to 'reverse' industrial film-making standards, cultures, and the predominant visual language by framing sonic thinking since the film's conception. Put simply, thinking about sound design even before the film was shot triggers creative possibilities for filming and editing the audiovisual material.

Chapter Conclusion

This chapter has examined sound and the environment's creative and critical role in documentary production. Through the concept of '*amplifying ambience'*, I have investigated the use of listening, creative field recording and sonic composition practices as a way to articulate sonic thinking in the non-fiction filmmaking process. The research has posed questions centred on my practice research's Phase One and Phase Two experiments, explored and answered via practice research and critical reflection. In this direction, the chapter explored and achieved the objective three of my research:

> To experiment with listening practices and field recording in film-making
> through a series of sonic works. This objective will focus on the perceptual
> and critical impacts of representing sound and place as a way of knowing. It
> will highlight their roles as catalysts for advancing documentary research and
> informing subsequent film production. (Research Objective 3)

In that sense, this chapter focused on practical experimentation, building on the conceptual framework, objectives, and methods established in earlier chapters. The Phase One experiment emphasised sound's ability to coexist in multiple perspectives within the camera frame, expanding beyond the visual predominance in non-fiction filmmaking. Therefore, this preliminary experiment resulted in the initial filming and editing strategies in which sound worked as a driving force within the visual elements. However, it was critical to reflect that the dynamic nature of non-scripted documentary production led to an organic process where listening, field recording, composition, shooting, and editing intertwined unexpectedly. This dynamic approach yielded generative results, prompting new theoretical insights and explorations that emerged from the practice.

Phase Two explored recording technologies' potential to capture inaudible sounds shifting sensory perception from a 'realistic mode of representation' to the sublime, tacit, and embodied knowledge (Nichols, 2010; Voegelin, 2021; Wright, 2022) generated by the materiality of sound. Therefore, this approach of thinking sonically in the film process resonated with the critical breakthrough strategy for sound design by incorporating the politics and poetics of listening: 'inviting' the audience to experience the materiality of sound onscreen and its socio-political context. While this chapter concentrates on creative field recording and sonic experiments, following the method proposed, the audiovisual integration and the post-sound design strategies will be unfolded in Chapter 4.

Thus, this chapter has demonstrated how listening associated with other sonic methodologies can catalyse research and practices that challenge dominant norms in documentary film-making. Embedding critical sonic practices throughout film-making challenges traditional visual-logocentric narratives, leading to re-thinking and recalibrating other sensory registers: aesthetically, perceptually, and politically in creative non-fiction filmmaking. The next chapter will explore the techniques, methods and conceptual frames employed to structure the audiovisual content and crafting sound design.

4   Chapter Four: Sonic Screen

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Chapter Introduction

This chapter employs a blend of critical and reflective writing to articulate the findings from the previous Phase One and Phase Two experiments into the post-production stage of my film project *Notes on Listening*. Chapter 3 critically examined the role of sound and environment as a powerful inquiry for non-fiction film-making, focusing on my embodied listening experiences mediated by field recording techniques and sonic composition to articulate conceptual frameworks. In the study, the term 'amplifying ambience' was established to address the research project's objectives to reclaim the sonic environment, which allowed me to incorporate sonic thinking and methods into the initial conception of my film project.

Therefore, this chapter examines how sonic methodologies were articulated as a driving force throughout the film's editing and the sound design process, and its modes of documentation, production, and subjectivity. It is in alignment with the fourth objective of my research (Research Objective 4): To create a short film that reimagines the articulation of place and sound, integrating insights from site-sensitive research into sensory-driven narrative structures. This film will serve as both a creative outcome and a reflective evaluation of sonic methodologies, emphasizing the creative and conceptual practices of listening in non-fiction film-making.

In pursuit of this objective, the central research question guiding this chapter is: How can the agency of the acoustic environment articulated by sonic methods shape and inform the film editing and offer the possibility of an expanded soundtrack unbounded by the visual-logocentric tendencies of the documentary form?

Similarly, it becomes helpful to re-assess the term 'amplifying ambience' after the criticisms and experiments of Phases One and Two. What constitutes site-specific environmental sounds as a creative driven force for non-fiction media works? Again, I draw upon conceptual

precedents, now integrated into the following stages of my project in post-production. Yet the main aim of this chapter is not to provide detailed or extensive coverage of the role of music and sound in the documentary film but to demonstrate via practice research how sonic methodologies have shaped my project, proposing a distinctive and critical approach to incorporating sound in non-fiction film-making. The intention is also to challenge and rethink the role of sound in non-fiction, transcending the conventional confines of the "audiovisual contract" (Chion, 1994), in so doing demonstrate the process of criticality at work.

To accomplish this, close attention was paid to the connection between the earlier sonic experiments and two stages of film post-production: film editing and sound design of *Notes on Listening*. This relationship manifests in multiple ways within the proposed research process diagram, as it involves integrating sonic thinking and sensibilities throughout the film-making process, as opposed to solely considering the creative possibilities of sound during post-production. It seemed rational as the author, recordist, composer, and now the 'director' to include the collaborative reflections necessary for the film's production. Therefore, by working synergistically with the film editor, cinematographer, and sound mixing engineer, my personal and amplified presence, subjective inspirations, methods and creative approaches were expanded.

Moving on, the 'Transcending Classic Narratives Through Sound' session involves integrating the previous sonic experiments and methods through collaboration with the film editor. It reflects on how embodied listening and sound influenced creative choices concerning the film's structure and narrative. The 'Stretching the Screen' session, through numerous conceptual frameworks from the previous section, explores the diverse palette of creative and subjective possibilities that arise when sound and listening are integrated as catalytic forces in film research and production. It delves into the critical intentions behind the sound design and mixing choices, situating them within the broader context of documentary films, including anthropology of sound, sonic arts, and film sound disciplines.

Therefore, this chapter aims to make an original and significant contribution to the currently limited discussion and application of evolving sonic thinking and methodologies in non-fiction film-making as an embodied and creative practice. It explores how sound can profoundly

influence the production and meaning of a documentary while critically challenging dominant narratives, offering expanded sensory perspectives of the actual.

Transcending Classic Narratives through Sound

A Film Designed by and for Sound

The common myth that filmmakers only need to consider sound at the end of the production process, when the film's structure is set in stone, has been challenged by many sound designers over the years. For example, Ben Burtt and Walter Murch, pioneers in developing the concept of sound design in the film world, worked closely with directors to create powerful sound effects and experiment and conceptualise a film's sonic world in tandem with storytelling. As a result, the 'effects' and 'consequences' of experimenting with sound and incorporating sonic thinking into the pre/post-production process can be experienced in classic fiction movies such as *The Conversation (*Coppola, 1974*), Apocalypse Now (*Coppola, 1979), *Munich (*Spielberg, 2005), and many others.

In the first sequence of *Apocalypse Now*, we hear a synthetic or electronically manipulated helicopter sound, which could either transport the viewer into the character's mind, delving into their memories and hallucinations, or be a dream sequence. Although the audience may not realise it, subconsciously they are aware of experiencing the character's perspective. Murch pioneered sound design, enhancing storytelling with sound and making the audience feel they perceive the story filtered by the character's brain. To achieve this, the camera work or the POV (point of view) sequence must be captured and edited in line with the pre-conceived sonic ideas. Thus, in this case, sound design starts with writing the script and creating a place where sonic thinking should be integrated into the 'DNA' of the film-making and picture-editing process. The sound designer Randy Thom has advocated, since the mid-1990s, for the possibility of sound being integrated into film-making process, highlighting its importance in films as a collaborative approach. This resulted in sound designers working closely with directors and other professionals throughout the film-making timeline to fully integrate sound

into the narrative, from the film's conception to exhibition and create a unified and compelling soundtrack. As Thom (2018, online) states:

> "A dramatic film which really works is, in some senses, almost alive, a complex web of elements which are interconnected, almost like living tissues, and which despite their complexity work together to present a more-or-less coherent set of behaviours. It doesn't make any sense to set up a process in which the role of one craft, sound, is simply to react, to follow, to be pre-empted from giving feedback to the system it is a part of."

In essence, influential figures in sound design such as Ben Burtt, Walter Murch, and Randy Thom have shared a common goal of elevating sound to the same level of importance as the image, integrating sound into the narrative from the start of the film-making process, and collaborating closely with other professionals such as the director, writer, and editor. However, this ideal has not been fully realised in practice, as the label of 'sound designer' has become narrowly associated with the creation of specialised sound effects through sound spatialization (Thom, 2018). Consequently, sound is often viewed as an afterthought, a means of enhancing the visuals rather than a crucial storytelling element. Unfortunately, this belief is deeply ingrained in the film industry, resulting in inadequate investment in sound during pre- and post-production and placing sound professionals under immense pressure to meet deadlines.

In light of the historical and persistent gap between the ideal of sound integration and the practical realities of film-making industries, my research shifted focus from mainstream dramatic/fiction to independent non-fiction film-making, seeking to integrate a multidisciplinary and more holistic approach to film sounds, investigating how sonic thinking and methodologies can influence and reorient non-fiction film-making.

At this stage, it became evident that listening played a critical role in accommodating multiple realities of Peckham Town Centre: embracing embodied experiences from the field and incorporating creative field recordings and soundscape composition to reflect from LaBelle's perspective of "acoustic territory" (2010). LaBelle's drive to delineate the acoustic space of urban centres is motivated by his desire for socio-political connection – delineating the sonic environment through the establishment of vertical boundaries within urban areas. By documenting the acoustics from the subterranean depths to the street level and even

extending to the sky, LaBelle makes one of the few discernible efforts to demarcate and outline his concepts of acoustic territory. It aligns with my intention to investigate the acoustic territory of the urban space to establish a connection between the social, cultural, and political context of Peckham's character. However, this endeavour resulted in productive tensions between observational documentary mode and a more creative impulse to generate sensory narratives in non-fiction film-making.

In this project, critical listening and sonic methodologies activated the agency of sound (LaBelle, 2020) and its ability to evoke a sense of place, comprising a spectrum of experimentation of how the agency of the acoustic territory has influenced the film-making and editing process to inform alternative avenues for the film's structure and narrative. LaBelle's (2020) notion of "sonic agency" is also applicable here, based on the premise that sound is an active agent influencing our experiences and perceptions of the world around us rather than a passive component. According to him, sound has the agency or the capacity to impact us on different levels of our being, permeating our psychological, social, and physical body with its affective potential (LaBelle, 2020). We can comprehend the social and cultural dynamics of our environments and how sound shapes and transforms them. Hence, critical listening is integral for understanding the dynamic agency of sound and decoding its contextual significance. It leads to a deeper comprehension of our acoustic environment and fosters a richer connection with the world around us. Through active engagement with the acoustic territory, there is a potential to uncover hidden narratives that shape our everyday experiences.

Therefore, in *Notes on Listening*, sonic methodologies demanded a shift from the ocular centrism and verbal communication predominant in the documentary form into a sonic world requiring other sensibilities or multiple "points of view" (Wright, 2022). However, as reflected in Chapter 3, taking a critical and sensory approach to documentary film-making presented a challenge in reducing the film to a single subject matter, which arose due to the expansive possibilities of soundscapes penetrating the visual component, resulting in multiple viewpoints generated through performative acts of listening and field recording. Hence, when shifting our focus to the sonic environment, anything and everything could be considered a subject (Wright, 2022), making it challenging to create an 'objective' structural narrative.

Thus, *Notes on Listening* emerges as a non-fiction film crafted and designed by and for sound. In the next section, I will critically reflect on and discuss the sequential experiments, progress, modifications, and the iterative process that transpired during the film editing stage, which originated from the initial task of manipulating audio and video footage to construct the cinematic cut.

Non-Traditional Narrative Structures

In *Notes on Listening*, there is an absence of any interviews or voice-over; the film entirely lacks spoken language, except for incidental instances and initial texts onscreen. When producing an unscripted non-fiction film centred on sound and listening, structuring the audiovisual material is crucial to ensure cohesiveness and coherence in the narrative structure. Unscripted documentaries are non-fiction films based on actual events and experiences without the assistance of a written script or screenplay, focusing instead on the unpredictability and spontaneity of situations in life. It lets the narrative unfold naturally, often employing interviews, observational footage, and other documentary film-making approaches (Lee-Wright et al., 2009). One could even argue that while editing the footage, the 'script' emerges organically. Although it may not strictly adhere to traditional text-based screenwriting, it is through thinking, editing, reflecting and experimenting with the material that potential narrative forms take shape.

In the project, critical listening was a methodologically driven force employed to unfold possible narratives. Listening, with its capacity to encompass multiple perspectives at the same time, suggests that sound can transcend mere representation (LaBelle, 2010; Voegelin, 2019; Wright, 2022). The film disrupts the dominant narrative-driven approach by "questioning the boundaries of language in capturing or depicting urban spaces" (Gentic, 2014, p. 203). *Notes on Listening* bypasses traditional conversations surrounding urban gentrification and political agendas while also eschewing the reliance on conventional narrative structures commonly found in mainstream documentaries. Through strategic subversion of conventional voice placement on the soundtrack and the deliberate inclusion of visual imagery in a carefully constructed rhythmic mediascape, the film aligns with the contemporary cinematic shift emphasising gesture and affect over markers of identity and representation (Buhler, 2020).

Therefore, through a sensory amalgamation of visuals and sounds, *Notes on Listening* is more than just an audible representation of a visual event. It imbues a space with perspective and dimension that cannot be achieved solely by visual stimuli. Unaffected by the constraints limiting our vision, simultaneous sonic capacity unveils the challenges of mediating embodied listening experiences (via field recording and soundscape composition) with the constraints of "vococentric" (Chion, 1994) classical narratives in the visual domain. As Schafer (1994, p. 08) states:

> "In any cultural arrangement, trouble always occurs when only one sense is subjected to a barrage of energy and receives more stimulus than all the others. For modern Western man, that would be the visual state. By neglecting ear culture, which is too diffuse for the categorical hierarchies of the left side of the brain, Mankind has locked itself into a position where only linear conceptualization is possible."

Schafer argues that dualism manifests as a symptom of a visuocentric philosophy predominantly influenced by Western thought. Similarly, but from a deeper critical perspective, Voegelin (2019) reinforces that the preference for the textual and pictorial visual paradigm leads to a dualistic mindset fostering differentiation, hierarchy, and an anthropocentric perspective: "It establishes a dichotomy between human and non-human signs, constructing a chain of distinctions and resemblances" (p. 156).

It is argued this dualistic mode of thinking, which limits itself to linear conceptualization, has also been the foundation for classic narratives, which usually involve engaging the audience through strong emotions and cause-and-effect structure, relying on psychological paradigms (Knudsen, 2010). That is, it is based on a storytelling approach, adhering to a linear plot structure characterised by a distinct cause-and-effect relationship between events. These narratives often revolve around a protagonist who encounters challenges and experiences personal growth or transformation. As Knudsen (2010) illuminates, "Such notions as 'character motivation', 'narrative aims', 'obstacles', 'climax' and so on have evolved to become as overwhelmingly dominant in cinema as the dogma of reason which subsequently the industrial age solidified" (p. 343). Although this conventional narrative approach, emphasising logical structure, a central protagonist, and predictable cause-and-effect relationships, has become deeply embedded in the creation and consumption of films, it has faced criticism within the

documentary field for perpetuating prevailing cultural and ideological norms, privileging specific voices and perspectives, and reinforcing existing power dynamics (Minh-ha, 1991; Balsom, 2018; Rangan, 2017). Knudsen (2010) suggests exploring an alternative perspective on cinematic narrative to surpass the constraints of the traditional narrative approach. He is inclined 'towards a transcendental realism in film' (2010, p. 1). The transcendental narrative style is often found in films delving into abstract subjects or themes beyond the limitations of superficial cause-and-effect relationships, stories fostering audience engagement and facilitating a profound and personal connection that transcends linear narrative structures.

I emphasise here that the 'transcendent narrative' style holds value in contemporary documentary film-making, as it aims to evoke affect and cultivate a profound sensory comprehension of the complex realities we experience. Non-conventional narratives have the potential to provide a more diverse and inclusive approach to transmitting knowledge and conveying meaning in documentaries. Returning to Knudsen (2010), the classical narrative in films captures viewers through self-assertive emotions, while the transcendental narrative seeks to involve the audience's participatory feelings in exploring the narrative. Similarly, Teixeira (2014) reflects on "weak narrative", which bears remarkable resemblances to the principles underlying transcendental narratives: "… the architecture of weak image is contextual and responsive, is more concerned with the actual sensory interaction than with idealised and conceptual demonstrations" (p. 439).

In summary, transcendental, non-conventional, or weak narrative concepts in films provide a valuable framework for delving into sensory subjects and promoting a more performative and participatory approach to non-fiction narratives. All of these approaches to transcending classic narratives encompass phenomena and sensory experiences, and their interpretation and mediation offer resonant definitions and thresholds.

Structuring the Audiovisual Material: Notes on Listening

The concept of montage, popularised by Eisenstein, emerges from the intersection of separate shots, with each subsequent element being perceived not in succession but overlapping with others. Eisenstein posited the power of a film lies not in the content of individual shots but in

the editing and arrangement of these shots, which involves juxtaposing images to create connections and evoke emotional responses (1949). Such intricate theories transcended sequential editing and employed visual and musical associations to effectively communicate complex ideas. Alberto Cavalcanti further expanded on this aesthetic by applying it to sound, disrupting sound–image continuity and exploring the creative potential of combining ambient sounds, music, and voice. Cavalcanti's exploration of sound in moving images went beyond considering sound as a mere complement, instead, regarding it capable of infusing films with additional elements of conflict (Cavalcanti, 1977). Films such as *Rien que les heures* (1926), *Night Mail* (1936), and *Coal Face* (1942) exemplify the poetic possibilities of a unified soundtrack in which music, ambient noises, and voice are entangled without hierarchical sonic structures in the mixing.

While my research does not examine the historical experimentation of sonic possibilities in films, it is crucial to acknowledge that industry demands frequently constrain sound's creative and experimental history in cinematic narratives. The prioritisation of dialogue as a narrative-driven force in Hollywood cinema led to the suppression of a highly inventive era of cinematic experimentation. Gentic reflects (2014), "The addition of voice through the talkie, however, had the almost immediate ramification of making the word the driving force of fictional narratives and nonfictional documentaries" (p. 202). The dominant authority of voice in the film industry continues to significantly influence how sound operates, maintaining a hierarchical separation between sound and voice. According to Chion (1994), critics have commonly recognised the division between voice and other spectrums of sound in their understanding of film.

In that context, by resisting language, my film project, aimed to go beyond the mere replication of past approaches. It pushes forward to reshape and recalibrate future possibilities, encouraging re-thinking of the role of sound in contemporary and independent non-fiction film-making and the historical-cultural challenges it might encounter. Here, critical listening is an alternative strategy – methodologically, epistemologically, and ontologically – rich in possibilities.

However, producing an unscripted non-fiction film triggered by listening strategies involves organic encounters and decisions based on various choices. But, as discussed in Chapter 3,

instead of following a linear sequence or a predetermined direction in the research process, it involved a combination of embodied listening practices, field recording, soundscape composition, visual shooting, and editing, all intertwined in an organic flow requiring a generative approach.

In the beginning of my experiments, upon determining the scope and location of my practical work in Peckham, southeast London, I invited Tatiana Germano, a film editor to join the project. We intended to explore potential audiovisual narrative structures in response to a series of experiments conducted in the earlier stages of my research. This initial experiment consisted of the film editor receiving the raw footage, audio material, and sonic compositions as a starting point to structure the material in response to the experiments.

My approach, called 'dialogic editing through sound', was inspired by Steven Feld's 'dialogic editing', which involves a collaborative approach between the sound editor and the recording subjects, incorporating their input and feedback. This approach aims to ethically represent the original context and significance of the recorded sounds. Feld reflects, "The 'dialogic' dimension here implicates what Kaluli and I say to, about, with, and through each other, developing a juxtaposition of Kaluli's voices and my own. My focus on 'editing' invokes a concern with authoritative representation, the power to control which voices talk when, how much, in what order, and in what language. 'Dialogic editing', then, is the impact of Kaluli voices on what I tell you about them in my voice" (Feld, 1987, p. 191).

However, in *Notes on Listening*, as no central human subjects exist in the narrative I define 'dialogic editing through sound' as a modified process of Feld's approach. It involved a collaborative interaction between the film editor and myself, responding to the sonic compositions and the interplay between sound and raw footage. This method provided a less-hierarchical approach to documentary film-making, promoting experimentation and reflexivity without the full authorities of a film director. It involved listening and discussing these elements to generate structure and content beyond linguistic meaning. Therefore, we explored the development of a sensory narrative that emerges from non-verbal language when editing the film, hence being particularly interested in what sounds and visual footage reveal about the acoustic territory of Peckham. How can this be achieved without linguistic voice or text? What

is the role of the film editor in attempts to interpret and respond creatively in the editorial process through sonic thinking?

In this setting, the editorial choices of the film held multiple interpretative possibilities, necessitating continuous negotiation between the author (myself) and the editor, fostering a generative process of experimentation and reflection. As Candy (2020) illuminates, "Reflection in creative practice is multi-faceted and pervasive process that is embedded in the practitioner's way of working" (p. 52). She continues, "Practitioner's exhibit all types of reflection in practice, such as 'reflection-for-action'; 'reflection-in-the-making-moment'; 'non-reflective-actions'; 'reflection-at-a-distance' and 'reflection-on-surprise'" (p. 52–53). Therefore, during this collaborative stage with the film's editor, reflective variations were explored and integrated into the research and editing process, adapting to the demands of the study. "Reflection-in-the-making-moment" and "reflection-on-surprise" emerged more frequently at this stage.

The following section will delve into the film editing process, which emerged during 'breakthrough moments' in editing, leading to novel insights through shared discoveries (Marsden, 2022, p. 113). Embracing surprises and being willing to discard previous experiments and concepts were essential in these moments. Therefore, collaboration played a vital role in broadening my self-reflective approach and integrating the perspectives of collaborators, providing external support for research evaluation and offering fresh insights beyond my own perspective.

Cuts from Phase One Experiment

In the research journey, informal conversations and a semi-structured interview were conducted with the film editor to explore patterns and breakthrough moments across the 14 cuts of the film. Phase One and Two experiments, discussed in Chapter 3, were instrumental in establishing the audiovisual explorations that expanded a range of conceptual frameworks in the shooting and editing process. I began formulating what listening and field recording enable when extended and mediated through film-making practice: What type of documentary film can emerge when environmental sounds, filming, and editing combine, fuse, and create a different relationship from the traditional approach?

Documentary footage is commonly edited based on a written script, the director's decisions, or a narrative structure influenced by spoken words such as interviews; voice-overs; testimonies; and considerations of storytelling, visual material, and film style (Nichols, 2010). In contrast, Germano (2022), the film editor of my film, highlighted that the editing process for *Notes on Listening* deviated significantly from her usual approach, requiring her to detach from the visuals and prioritise the sound instead (Germano to Mazza, 2022). Without a script or spoken language to direct editorial decisions, her observation highlights the need to reconsider the guiding process:

> … and the whole process of editing was a little bit like, listening to music… so it would be something much more free than just thinking about image. So, I had to let go of the image and think about the sound. Starting to make the structure, the first thing I thought was we need to have some kind of narrative ….but first, I thought that this kind of chaotic soundscape which is Peckham, you know, we arrive by train and then we get into this whole sort of sounds coming from everywhere and people passing, and then we start to go deeper moving from the whole, jumping slowly into the micro, specific perspectives motivated by the soundscape… a bit of chaos that starts to take some kind of form. (Germano to Mazza, 2022)

Germano emphasised the primacy of sound in guiding the initial decision-making process in the search of potential narrative structures. Triggered by her ideas of an audiovisual journey, the sonic composition *(In)Audition 1* (in Chapter 3) was adopted as inspiration for the first editing attempts, capturing a subjective sonic journey through Peckham's Rye Lane. Here, a 'chaotic' soundscape, including sonic layers of footsteps, bicycles, bells, voices, street music and other sonic marks, established a sense of place reorganised by the compositional process. Interestingly, the words she applied, such as "universe of different things", "various perspectives motivated by the soundscape", and "moving from the whole to the micro", indicate her understanding or sensibility of sound's ability to convey multiple perspectives and scales simultaneously. Her recognition of the simultaneous quality of sound signifies a key breakthrough from Phase One experiment, elucidated and examined in Chapter 3.

Germano continues further: "I just figured that the whole process would be, like, detached from what we're seeing because people would have different experience with the same footage and the sound would be a guide" (Germano to Mazza, 2022). Germano's choice of vocabulary

while articulating the editing process highlights the role of sound as a guiding element, fostering creative experiments towards a nonlinear structural narrative. Here, the simultaneous sound capacity, perspective, and scale served as a creative response during the editing phase. Rather than treating sound as support for the visual footage, her intentions and vocabulary indicate "a sonic awareness of aesthetics and materiality" (Groth & Samson, 2016, online) that reorganised the overall film structure. Thus, the auditory experience played a crucial role in shaping the initial cut of the film, version 1, taking the form of an audiovisual journey along Rye Lane, starting with the arrival of a train and ending with its departure, leading to two notable stylistic outcomes:

1. The editor creatively combined multiple screen takes, in response to the sonic elements in the footage and the sonic piece *(In)Audition 1*. That is, this creative technique inspired the editor to experiment with displaying multiple scenes simultaneously on the screen by rearranging long takes into layered audiovisual compositions.

Figure 11: Still from the film Notes on Listening (2023). Dir. Francisco Mazza

2. The second aspect explored the use of static camera shots accompanied by sound to examine the sonic spatialization beyond the visual frame. Binaural recording

techniques enabled the exploration of sonic perspective and scale in temporal sync with the camera shots (diegetic sounds), however, moving beyond the visual reference onscreen.

Figure 12: Still from the film Notes on Listening (2023). Dir. Francisco Mazza

The upcoming section '*The Sound Design of Notes on Listening'* will unpack these techniques, elaborating on how the visual shooting and sound recording approaches were subsequently integrated into the overall sound design. Upon organising the audiovisual content and exploring different narrative and stylistic options, the initial 25-minute cut lacked coherence and required a more consistent structure to be meaningful, necissating additional experimentation to enrich the immersive[17] sensory experience and establish a more cohesive

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[17] In the context of film production, Chapter 3 explored the practical aspects of immersion by utilising situated listening experiences and binaural microphones. As a result, a deliberate technical and creative decision was made to incorporate the

narrative structure. As the specific elements needed to fill the exposed gaps in the cut were not immediately discernible, a deeper exploration of my research's practical and theoretical aspects became necessary to address it effectively. Thus, Phase Two experiment was triggered.

Cuts from Phase Two Experiments

The methodological process and creative toolkit were consistent approaches for returning to the field – Rye Lane in Peckham. As it seemed rational then to expand my ongoing experiments in this location, I embarked on a new series of sonic experiments known as 'Phase Two experiments', discussed in the previous chapter. This led to the development of new conceptual frameworks integrated into my cyclical research practice, thereby giving rise to additional research inquiries. Moreover, the editing process was enriched by including newly acquired sonic and visual material from practical experiments, resulting in fresh film editing cuts.

This second series of experiments with editing and cuts led to a variety of other sonic explorations of transitional moments in the audiovisual journey into the acoustic territory of Peckham. As Germano (2022) reflected, "And of course, it starts with the train arriving and it ends with it departing. So, I thought that the structure needs to be like that, arriving and leaving, and the whole thing in between" (Germano to Mazza, 2022). This "whole thing in between" emerged from the intricate listening, recording, filming and editing process. Two distinct conceptual and practical sonic explorations emerged from the practice research: 'grasping the inaudible' and 'acoustics of resistances', as discussed in the previous chapter. The first applieddifferent field recording techniques and technologies, such as contact and electromagnetic microphones, aimed to access sound below and above the human capacity of hearing (20 Hz–20 kHz), providing an "expanded possibility of the actual" (Voegelin, 2019,

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immersive experience into the film's re-recording mix. Specifically, the entire film was mixed using Dolby Atmos technology, providing two distinct deliverables: a stereo binaural mix optimised for headphone playback and a 5.1 mix tailored for cinema theatre screenings.

p. 272) via 'sonic materiality' (Birtwistle, 2017; Cox, 2011; Voegelin, 2019). The second allowed for an affective understanding of the essential role 'vibrations' (Boon, 2022) play in the cultural dynamics of the place. This chapter will discuss further exploration of these concepts in the upcoming section '*The Sound Design of Notes on Listening*'.

Nevertheless, returning to the film editing process, the assemblage of the material should be carefully considered to maintain a sense of aesthetic coherence. For example, using multiple sonic layers and chaotic soundscapes could create a sensory overload and the multiple possibilities of assembling the audiovisual material could lead to confusion. Therefore, the emerging revelations about the film's editing structure became apparent after eleven iterations of the edited audiovisual sequence. Based on the conceptual sonic ideas arising from the previous research experiments, the film was ultimately divided into three distinct acts:

- Act 1 – *Entering the Acoustic Territory*
- Act 2 – *Acoustics of Resistance*
- Act 3 – *Grasping the Inaudible*

The following section will comprehensively examine the sound design process and unpack the film's three acts, critically and conceptually exploring the articulations from the previous experiments and their conceptual frames: perspective and scale, vibration and its socio-cultural resonances, and the materiality of sound onscreen.

A video excerpt featuring the interview with Germano, the film editor, can be accessed on the film's website: https://notesonlistening.wixsite.com/film

Section Summary

Building on the critical framework of 'amplifying ambience', the previous experiments played a crucial role in incorporating sonic methodologies into both the filming and editing processes. That is, sound is a driving force to orient and shape the style and narrative of the film. However, due to the inclusion of multiple points of view through performative acts of listening and field recordings, as well as the deliberate absence of linguistic narratives, significant gaps in the audiovisual structure emerged. Nonetheless, as the practice research unfolded as an ongoing exploration, the focus of film editing gradually shifted from a macro and broader perspective

influenced by the overall soundscape to more subjective viewpoints supported by conceptual frameworks in sound studies.

This shift indicated that the contextual and critical intentions of the experiments carried out in Phase Two significantly impacted the editing decisions. Through various forms of reflective analysis and experimentation with the audiovisual footage, the three acts mentioned earlier resonated in the editing choices, leading to additional creative and aesthetic implications for the film's sound design.

Stretching the Screen

Sonic Matter and Sensibilities

The previous sections provided a comprehensive overview of integrating sound's cultural and material dimensions into cinematography and film editing through various sonic methods. The next section examines how these concepts can be effectively expressed in the film's sound design within the context of 'audiovisuality' (Birtwistle, 2017; Chion, 1994; Rogers, 2020).

The inquiry into the intrinsic materiality of sound separated from the objects it appears to represent was explored in Pierre Schaeffer's notion of 'reduced listening' (2004). Chion (1994) argues, "Reduced listening, also known as acousmatic sounds, directs attention to the qualities and characteristics of sound itself, detached from its origin of symbolic significance" (p. 29). Therefore, the material qualities of sound, including timbre, duration, pulse, frequencies, and its evolution over time, are often referred to as 'sonic objects' or 'objets sonores' in the theoretical framework of Schaffer. This perspective continues to influence the legacies of musique concrète and acousmatic compositions, which later were incorporated into film sound studies (Birtwistle, 2017; Chion, 1994; Rogers, 2020).

While acknowledging the historical significance of Schaffer's notion of 'objet sonore' within film sound studies, it is essential to highlight a divergence from my research's contextual framework. This deviation emerges from the legacies of treating sound as a sonic object solely for aesthetic compositional purposes – from concrete/acousmatic music to its application within

the "audiovisual contract" (Chion, 1994) – detached from the contextual references of the sounds' origins and their underlying social-political significance (Feld, 2015; LaBelle, 2010; Voegelin, 2019; Wright, 2022). Therefore, as previously articulated, given the nature of my research, which examines the 'sonic ecosystem of documentary'[18] concerning its social-political potential, my focus veers towards a sonic materialism aligning closely with the viewpoints of other contemporary sound practitioners and scholars.

The perspectives of Feld (2015), LaBelle (2010; 2018), Voegelin (2019), and Wright (2022) on sound's materiality goes beyond its role as a mere object for compositional manipulation to promote a holistic understanding of sound that transcends the audible spectrum, encompassing practices and theories that extend within and beyond objects and entities. They also embrace environmental and socio-political resonances in the exploration of sonic studies. While I refrain from delving into the philosophical intricacies of materialism theories in my studies, it is critical to re-connect the conceptual framework of sonic materiality underpinning my research's origins and development, as established in Chapter 3. Therefore, Voegelin's (2019) insights are particularly valuable as she expands on the "sonic sensibility" (p. 163) concept and highlights the diverse ways sonic materiality holds significance, challenging dualistic visual-logo-centric histories (Voegelin, 2019, p. 163):

> "A sonic sensibility let us think a different materiality that is not virtual, distant and mathematically probable, but possible as inhabited plurality…to create a being in the world that articulates through the encounter, the conflict and difference that are the engine of its material reality."

Voegelin (2019) suggests listening immerses us in the realm of matter, revealing multiple coexisting 'realities' where 'matter and meaning' intersect and intertwine, which challenges the

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[18] De Michiel and Zimmerman (2013) characterise the twenty-first-century documentary as dynamic, collaborative, adaptable, and responsive. Recognising documentaries as intricate ecosystems within media environments (Nash et al., 2014), they continuously adapt to technological advancements, societal shifts, and political changes. Guiding my research, I introduced the term 'Sonic Ecosystem of Documentary', specifically focusing on the sonic aspects within the non-fiction landscape.

conventional notion of objectivity in documentary film-making when integrating sonic sensibilities. In my project, the integration of sonic methodologies profoundly influenced the film-making's performative and experiential aspects, shaping the film's stylistic outcome, including its sound design. In other words, Voegelin's (2019) concept of sonic sensibility introduces "in-between of listening" (p. 163), which opens up possibilities to challenge and recalibrate the visual-oriented predominance in documentaries and consequently authoritative gazes they often embody. This sonic sensibility embraces a materiality "that start not from the dualism of a visual philosophy but from the unseen simultaneity of things" (p. 158). This philosophical approach values listening and encourages us to participate in a 'listening in-between' to better comprehend our complex multisensory world and its intricate relationships.

Thus, although a comprehensive methodology to shift the focus towards perception and aesthetics is often employed in creative documentaries (MacDonald, 2015; Minh-ha, 1991; Nichols, 2010; Rogers, 2022), a more in-depth exploration is required to articulate the role of sound and listening as a process to achieve this. Therefore, sound plays a prominent role in non-fiction films that aim to immerse audiences in the "sensory realm of other cultures" (Casting-Taylor in MacDonald, 2015, p. 374) or transcend traditional narratives (Knudsen, 2010). Thus, the sensorial aspects and materiality depicted on screen for the audience are not solely the result of the audiovisual assemblage in post-production. Instead, the film-making process is inherently linked to the 'politics of location' (Nagib, 2020; Nichols, 1994), as filmmakers often strive to observe "the intricate and ongoing transformations, both visually and aurally, occurring during the production of films" (MacDonald, p. 374).

I further argue that Voegelin's concept of sonic sensibility, as a material presence, enables us to engage with the intricate and simultaneous facets of the world, offering a phenomenological framework surpassing dualistic thinking (Voegelin, 2019, p. 163). However, before embarking on a critical analysis and discussion of the sound design and mixing in *Notes on Listening*, it is critical to reaffirm that the project was fundamentally grounded in applying listening and sound as a methodological, epistemological, and ontological approach, which involved creative field recording and sonic editing to give shape and form to my listening experiences. Following this, the notion of the 'materiality of sound' (Cox, 2011; Voegelin, 2019; Wright, 2022) was incorporated, absorbed, and then further developed within the broader context of the

audiovisuality (Birtwistle, 2017; Chion, 2004; Rogers, 2022), which will be explored in the subsequent sections.

Audiovisuality

In forms of media that involve time progression, such as film and video content, the dynamic nature of sound and image gives rise to a continuously evolving interplay between them. As the narrative unfolds, the synchronization, juxtaposition, and interaction between them become crucial in conveying meaning, evoking emotions, and shaping the overall audiovisual experience. Conversely, intentional dissonance or divergence between them can create tension, evoke ambiguity, or challenge the viewer's perceptual expectations. As Birtwistle (2017) reinforces this idea, "At the same time that we engage intellectually with the significatory dimensions of film and video, the medium's materiality also registers and operates at the level of affect" (p. 20).

Sonic materiality within audiovisual media underscores the significant role of sound design in evoking sensory responses and immersing the audience in a multisensory cinematic experience. Birtwistle (2017) explores sonic materiality "within the context of its relationship with the image", or what he describes as "audiovisuality" (p. 18), providing extensive insights into the contribution of the materiality of sound to the audiovisual medium's aesthetic, political, and affective dimensions in films and videos. He argues, "Any critical engagement with film's materiality must be informed by the idea that what we term 'the film' is marked by a relationship between sound and image" (p. 18). Birtwistle's notion of audiovisuality incorporates several contemporary theorists such as Laura U. Marks, Vivian Sobchak, Brian Massumi, Noël Carroll, and others to propose "ways in which a non-significatory registration of sonic phenomena might be considered critically" (p. 6), turning attention to the affective and material qualities of film and video media.

The issues of film's media materiality were a central concern in the formulation of 'structural films' in the 1960s and 1970s in avant-garde film-making practice (Cornwell, 1972; Gidal, 1989; Hein, 1979). However, Birtwistle's proposition offers an intriguing perspective on sound and how sonic materialism challenges the assumptions of Saussarian models of signification, a non-dualistic approach considering "the materiality of sound integrated into audiovisuality in

media practice" (Birtwistle, 2017, p. 4). By interrogating film's representation as a signifying text, he highlights the transformative nature of the audiovisual amalgamation, where perception influences and transforms one another (Birtwistle, 2017; Chion, 1994). The author thus acknowledges the integration and inseparability of sound materiality from an audiovisual context.

However, in contemporary non-fiction film-making, as demonstrated in *Notes on Listening*, there is a need for a comprehensive exploration of the potential of integrating sonic materiality into the film-making process, which transcends the conventional examination of "exhausted audiovisual relationship studies" (Chattopadhyay, 2021, online) and the usual focus on examining "modes of reception and spectatorship" (Nagib, 2020). By exclusively focusing on the interplay between sound and images in time-based fixed media, modes of production are disregarded. Consequently, the potential role of "sound as way of knowing" (Feld, 1996) and its "passage to material and political reality" (Nagib, 2020, p. 23) via "sonic sensibilities and materiality" (Voegelin, 2019) remains unexplored in non-fiction film studies and practices.

Therefore, while the forthcoming section will primarily examine the sound design of *Notes on Listening* and its creative, technical, and critical objectives within the film's audiovisuality, it is not within the scope of this discussion to delve into the intricacies of semiotics inherent in the audiovisual contract. Instead, my proposition centres on the holistic integration of the initial sonic experiments developed throughout my research and subsequent creative strategies on film-making, underscoring the interplay between these elements. It highlights their interconnectedness on how sonic thinking and sensibilities could drive the project within the perceptual and aesthetic consequences on screen.

The Sound Design of Notes on Listening

Before delving into the section, watching *Notes on Listening* is highly recommended for enhanced understanding of the written components.

Play: https://vimeo.com/857449724/62f15e2944?share=copy

Figure 13: Still from Notes on Listening (2023). Director Francisco Mazza (2023) / Image credit: Raquel Diniz (2022) / Film Editor: Tatiana Germano (2022).

Expanded Soundtrack

Sonic thinking and sensibilities were not only the catalyst forces in film editing but was also adopted in the sound design for *Notes on Listening*. The soundtrack was created not just to enhance the audiovisual experience via the constant flux and flow of the vertical and horizontal intertwining of audio and image (Chion 1996), but to transcend traditional boundaries, enabling a sonic continuity that fosters freedom and agency in shaping sensory space and subjective experience on screen (Huvenne, 2022; Rogers, 2020). This soundtrack's sonic continuity was deliberately crafted, akin to a carefully composed score, conveying multiple meanings. It incorporates various sonic elements, layers, and dynamics, resembling the previous soundscape compositions, while also incorporating additional elements recorded on location. Intentionally, the film does not feature a traditional film score, except for diegetic music recorded on location.

Instead of treating sound as mere support for visual footage, I propose that sound has the potential to transform the visual depiction of Rye Lane in the film, creating an auditory realm that embodies an "affective and corporeally felt notion of community" (Gentic, 2014, p. 199). Thus, the holistic phenomenological integration of my personal embodied listening within the

audiovisual experience suggests that auditory spaces within films can serve as a bridge connecting the inner realm of experience with the external world: "With all sensory impressions brought together by the body as a sense of movement … it becomes essential to incorporate embodied listening … with the body at the centre of its experience" (Huvenne, 2022, p. 286) in the film sound studies. With this purpose in mind, the soundtrack intentionally excludes dialogue, directing attention to the interaction between image, sound, and sensory transitions while incorporating my presence behind and occasionally onscreen through sonic perception.

In the opening scene of the film my presence is depicted on screen, as I point out a microphone towards the Bussey building. Rather than providing abundant visual cues regarding this space and its sonic milieu, the sound takes centre stage, establishing the auditory landscape to introduce subsequent texts displayed onscreen. In this sequence, electromagnetic sounds are expanded through a blackout cut, reverberating the previous visual reference and serving as a subtle indicator to the audience that this is a film centred around sound and listening. This notion is further reinforced by the inclusion of introductory texts and the subsequent inquiry: 'Can we better understand a place through sound?' and 'How will Peckham High Street sound in the future?'
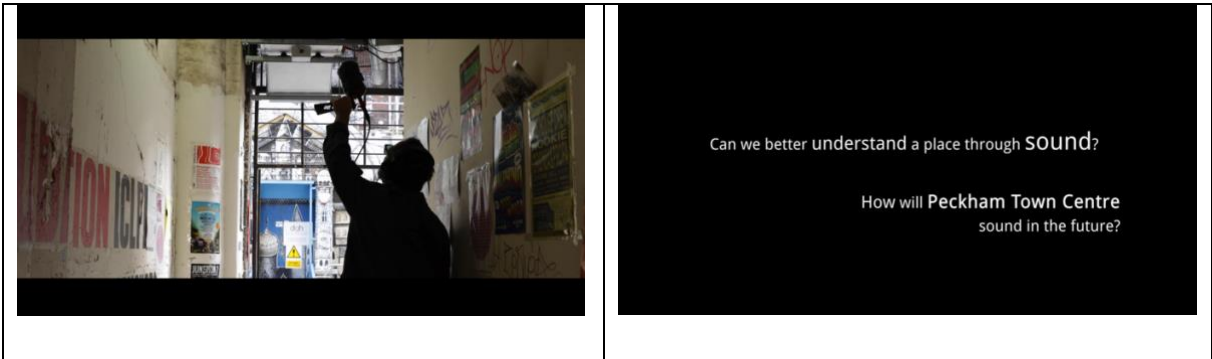
Figure 14: Screenshots from Notes on Listening (2023), directed by Francisco Mazza.

With the initial sequence in mind, I implemented sonic continuity, allowing sound to transition across different scenes and ensuring a cohesive flow throughout the film's three acts. In this context, *amplifying ambience* – expounded upon in Chapter 3 – assumes paramount significance. Within this framework, the sonic environment takes on the role of the primary protagonist in the film, driving and shaping the overall narrative via a sonic continuity, at times

preceding the visual reference and at others extending beyond its causality and stitching the diverse spectrum of the audible world of Peckham.

Keeping in mind the "importance of foreground-background spacing, in terms of density and clarity as well as realism" (Walter Murch, 2005, p. 32), the soundtrack expands, encloses, and shifts the visual experience towards "a dance between image and sound" (Murch, 2005, online) beyond the frontiers of the diegetic. Murch's (2005) concept of "density and clarity" suggests an audience can effectively process up to five layers of sound while still being able to discern the individual elements contributing to the overall mix. In other words, if you aim to create a soundtrack that is simultaneously dense and clear, it is crucial to consider the "spectral space" (Smalley, 2001) spanning across the layers of the soundtrack, encompassing both 'encoded' and 'embodied' sounds (p. 20). To facilitate understanding, these terminologies are defined. A 'layer' refers to a cohesive set of sounds playing continuously without significant gaps between individual sounds. On the other hand, 'spectra' or 'spectral space', as described by Smalley (2001), denotes the diverse "range of sound qualities, timbres, and pitches perceived across the audible frequency spectrum" (p. 118). In this context, Murch describes the sound spectrum of a soundtrack making sonic association with light as encoded sound, which he put over to the left (where we have violet), and something else he calls embodied sound, which he put over to the right (red). The clearest examples of encoded sound and embodied sound are speech and music, respectively. His conceptual idea of density and clarity applied to film mixing is then synthesised (visually) in the following diagram:

What this might mean, in practical terms, is:

1. One layer of "violet" dialogue;
2. One layer of "red" music;
3. One layer of "cool" (linguistic) effects (eg: footsteps);
4. One layer of "warm" (musical) effects (eg: atmospheric tonalities);
5. One layer of "yellow" (equally balanced 'centaur') effects.
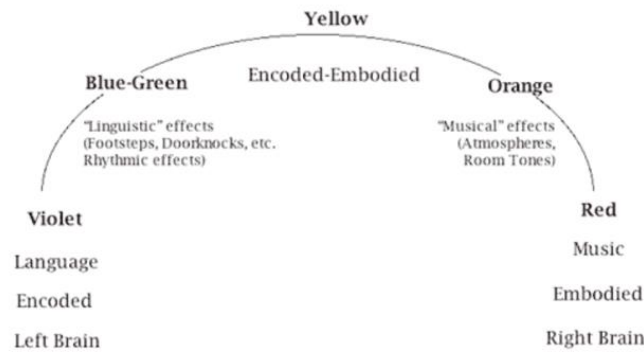
19

Figure 15: Murch (2005, p. 19). Density and clarity diagram.

While these concepts were applied during the sound editing, design, and mixing processes of *Notes on Listening*, my research does not intend to analyse "spectromorphology" (Smalley, 2001) or "density and clarity" (Murch, 2005), although they were occasionally referenced. Instead, it aims to connect Phase One and Two experiments to explore creative and critical intentions embedded within the film's sound design, which expand the embodied experiences of listening and explore the aesthetic, perceptual, and political potentials of the sonic landscape of non-fiction form.

The subsequent section will examine the conceptual and technical approach employed in the sound design of the three acts: *Entering the Acoustic Territory*, *Acoustics of Resistance*, and *Grasping the Inaudible.*

Three Acts

Act 1: Entering the Acoustic Territory

In Act 1, titled *Entering the Acoustic Territory*, a cohesive audiovisual relationship is established by closely aligning the sound with visuals, creating a sense of montage as a form of audiovisual composition. 'Composing audiovisually' refers to a technique involving the intentional arrangement and synchronization of the visual and auditory components as a unified form of assemblage to convey meaning, evoke emotions, and engage the audience in a multi-sensory experience (Birtwistle, 2017; Harris, 2021; Huvenne, 2016). This cohesive audiovisual relationship is then contrasted with subsequent long-static shoots, in which ambient sounds and a few foley works were strategically employed to reinforce the visual perspective, creating a sense of proximity and distance. Two elements are therefore explored here: the simultaneity of sound and perspective/scale.

Act 1 unfolds with the arrival at Peckham's Rye Lane, where the film's initial scene is set against the backdrop of a passing train, captured through a wide-angle shoot perspective. Transitioning from a top point of view (POV), we are abruptly immersed in the bustling streets of Rye Lane, where the preceding auditory cues culminate in the visual revelation of a boy engaged in skateboarding. In Act 1, the sound and visual continuity are systematically reiterated, and the subsequent sequence of overlapping multiple screens strengthens the editorial response through the sonic concept of simultaneity, connecting visual elements with the spatial perception of sounds captured using binaural microphones. It involves fragmenting and unifying multiple sonic perspectives through on-screen and off-screen sounds, employing audiovisual compositional strategies.

In Act 1 [00:01:40], going beyond traditional sonic representation in documentaries, through film editing in response to sound, fragmented scenes are presented simultaneously, merging multiple layers of everyday sounds of Rye Lane with a rhythmic counterpoint to the images. This temporal structure in editing, showcasing fragmented scenes non-linearly, aims to create a disorienting experience that permeates each frame. Therefore, the visual representation of the place is deconstructed by embracing the "full spectral potential of the wide-open sound

world" (Smalley, 2001, p. 119) of Peckham's streets. The simultaneity capacity of sound is reinforced through binaural recordings and mixing techniques, potentially disorienting the audio and visual relations. However, the continuous fluidity of sound leads to a corporeal perception and reception of everyday sounds, allowing the audience to be aware of the simultaneous space. In this regard, Gentic (2014) provides insightful reflections on Perez's film *Suite Habana* (2003): "What is reinforced is a listening subjectivity that is corporeally sensed and received" (p. 212). Similarly, this sonic interplay evokes the cacophonic realm and layered identities of Peckham's town centre, connecting fragments of the city beyond visual montage alone. Being more than merely an aesthetic abstraction without references or context, we delve into Peckham's acoustic territory through its "spatial texture" (Smalley, 2001, p. 125), gradually unfolding the social perspective over time.

This technique is then contrasted with subsequent long-static shoots, in which ambient sounds and a few foley works were strategically employed to reinforce the visual perspective, creating a sense of proximity and distance. Afterwards, a sonic continuity transcends the boundaries of the screen, signalling the advent of the subsequent scene sequence. At this juncture, prolonged uninterrupted shots [00:02:20], both stationary and in motion, disrupt the rhythm established by the preceding fragmented audiovisual mosaic. Then ambient sounds undergo a transition from the background to the foreground, assuming a heightened presence through the process of mixing. Although the audiovisual cohesion is not disrupted, the intentional displacement of sound, achieved through the use of perspective and scale in the sound design, moves beyond the previously established power dynamics within the visual domain. In this context, the auditory space subtly transcends the boundaries of the visual frame by moving the microphone beyond and around the camera, "exploring spatial properties and spatial changes" (Smalley, 2001, p. 125) in relation to the gaze. This displacement of sound from the visual domain towards a sonic subjectivity will be further explored in a 'radical' manner in Act 2.

In Act 1, perspective, scale, and simultaneity applied to the sound design were conceptual and creative consequences of the Phase One experiment. This allowed me to reflect and evaluate, in practice, this holistic approach to extend sonic thinking, sensibilities, and methodologies from the initial film's conception, now implemented into the film's sound design.

Act 2: Acoustics of Resistance

In Act 2, titled *Acoustics of Resistance*, the sound design and mixing incorporated a variety of techniques in alignment with one central concept that emerged from Phase Two experiment: Vibration.

Returning to Chapter 3's inquiries: What does exploring low-frequency cultures in the context of Peckham's Street mean? Which frequencies will be muted as a consequence of the new 'regeneration' projects developing fast around Peckham? How will the place sound in the future? The exploration of those questions was the fundamental motivation behind Phase Two experiment and, consequently, for the sonic conception and design of Act 2. Instead of addressing them in the written thesis, I delve into them as a creative catalyst for sound design decisions. From this particular frame, Act 2 expanded the acoustic territory of Peckham towards its sociocultural frequencies by exploring different sound design techniques, which will be discussed next.

One of these techniques, which can be subtly perceived from the initial scenes of Act 2 and becomes more explicit during the extended long-take at the church [00:06:35], involves the deliberate separation of sound from its visual referent, challenging traditional audiovisual conventions. In contrast to the previous act, Act 2 showcases a more pronounced movement of sound extending beyond the boundaries of the visual frame onscreen. This sound continuity and its transitions embrace a different resonant space on and off screen, oscillating between what Smalley (2001) describes in the context of acousmatic music as "gesture and texture mixtures" (p. 113). Moving away from the gestural presence of capturing the physical space, "the listening focus delves into the intricate details of the sound's textural qualities" (p. 113). In Act 2, there is a significant shift from an observational documentary mode towards a poetic register of sonic subjectivity, which is marked by a sudden blackout cut [00:05:31], breaking the boundaries of the visual frame to concentrate on the auditory setting.

Reflecting on this concept, Rogers (2020) discusses the notion of "audiovisual dissonance", highlighting that these instances arise when sound and image detach, "resulting in an audiovisual clash" (p. 88). Yet, in this particular scene [00:05:31], the black screen disrupts any audiovisual interaction, leaving us with a sustained sonic vibration permeated by low

frequencies. The imaginary off-screen space becomes significant by selectively filtering particular frequencies in the soundtrack, serving as a poetic device to critically and sensorially contemplate the themes of community displacement and removal resulting from new regeneration plans for the location.

Therefore, when considering the physical properties of sound, it is noteworthy to highlight the distinctive characteristics of bass frequencies, which display greater resistance to sonic barriers compared with higher frequencies and possess characteristics that make them more dispersed and challenging to localise within the space (Smally, 2001). The generation of low frequencies requires higher energy input relative to air pressure, yet they also possess an enhanced acoustic ability to 'resist' dissipation within the surrounding environment, due to their longer wavelength and lower frequency range. Because of these properties, low frequencies are less prone to being absorbed or dispersed by objects or materials present in the acoustic space and maintain their strength and integrity, effectively penetrating through physical barriers and persisting in the acoustic environment.

Therefore, understanding the acoustic behaviour of bass frequencies was relevant to explore creative and critical intentions of suppressing or accentuating specific frequencies on the sound design and how it could be related to community displacement and urban revitalization at Peckham Town Centre. To create a conflicted temporal state, the deliberate long observational shots in preceding scenes were disrupted by the sonic experience of a black screen (blackout) for a productive tension between the present moment and the speculative future of the place, engaging the audience in a "subjective sonic environment" (Rogers, 2020) filled with layers of low frequencies. This creative approach involved manipulating the vibrational spectrum of sound, symbolically embodying the multifaceted cultural influences encompassing reggae sound systems, radio pirates, grime, electronic music, gospel, and music emanating from shops and street markets. This manipulation suggests a muted acoustic territory while hinting at the lingering low frequencies that can still be felt resonating within the audience's bodies, which poetically alludes to the resonant and political title of Act 2: *Acoustics of Resistance.*

The amplification of sonic variations in volume and quality enhances the atmospheric soundscape, allowing real-world sounds to take on a compositional form that effectively communicates perceptual meaning (Rogers, 2020). However, the creative intentions driving the sound design extended beyond mere imaginative ideas conceived in the post-production studio, instead, emerging as creative outcomes of the preliminary research phase, specifically Phase Two, in which sonic thinking and sensibilities were catalysts for the 'vibrational' ideas to emerge in post-production.

In the following scene, the auditory setting diverges from the visual representation of the oldest church at Ryne Lane. Instead, the audience is immersed in a distinct auditory experience, as if transported inside the church, exemplifying how the systematic process of the previous experiments (Phase Two) influenced the film's editing and post-production. During filming, the cinematographer and I captured shots that experimentally explored sound movement using binaural microphones, which enables the audience to simultaneously observe the church facade and experience its interior through sound. The film editor reflects on the integration of this conceptual idea into the editing process (Germano to Mazza, 2022):

> "Yes, in the church. The sound is so different. The sound inside is so different from everything else. I think it's the point where the pace changes, and you become immersed in that world. But then, while looking at the window on screen, we are still listening to this song and echoes, but we're slowly moving away from there instead of just abruptly leaving. You know, we gradually exit until we return to the street."

For her, this scene resonates profoundly within the subjective realm of vibration and 'echoes'. The voice of the singer within the church continues to reverberate, even as the visual reference of the church transitions to another physical space onscreen. Therefore, a sonic exploration of spatial perspective sustains the backbone of Act 2, where the sonic environment undergoes a transformative transversion from its initial representation of 'real-world' sound to an enduring emotional resonance with other visual spaces (Chion, 1996; Rogers, 2020). As a result, the sound no longer depends on visual references for its impact. In this specific scene, what we observe onscreen is the visual transition from the exterior of a church to another physical space [00:07:43], transcending into a unique audiovisual space detached from its initial referential.

This approach also implies the idea of an external auditory presence, someone listening beyond the visual frame but within the film. It subtly conveys the message: I am here, engaging in acts of listening beyond the screen. The audience's experience transcends a mere visual depiction of space and involves a succession of embodied listening perspectives influenced by this 'someone'. It signifies that the agency of sound in *Notes on Listening* stems from the performative act of the human body, resonating with the audience, who simultaneously perceive it visually and aurally.

Consequently, at this stage, I recognised the increased potential of integrating sonic thinking and sensibilities into film-making, which gives rise to 'aesthetic', 'perceptual', and 'political' implications, as highlighted by MacDonald (2015), Huvenne (2022), and Voegelin (2019), respectively, with sound design now working as the mediator for these influences. Hence, the interplay between sonic practices and conceptual frameworks that emerged from the research combined with the film project's artistic and critical dimensions has become increasingly apparent. In essence, the techniques employed in the sound design were not separate from the previous experiments, instead serving as a contextual extension of the embodied listening experiences. As Huvenne (2022) states, "Rather than discussing image and sound as separate but complementary filmic elements, I presented a phenomenological approach to film and film sound as a whole, with all sensory impressions brought together by the body as a sense of movement" (p. 02). The previous experiments conducted as practice research were not separated from creative strategies on sound design/post-production but were rather an extension of embodied sonic thinking, now mediated by multiple creative possibilities on post-production.

As a method, this holistic integration was facilitated by a reflective approach to comprehend the influence of sound on the sensory, aesthetic, and political experience of Act 2 and its subsequent connection to Act 3.

Act 3: Grasping the Inaudible

In Act 3, titled *Grasping the Inaudible*, the attention turns to the materiality of sound existing beyond the limits of human audibility (20 Hz–20 Khz), exploring the means of capturing and incorporating the 'inaudible' within an audiovisual context. Recording technologies allow us to

dive into the infra- and ultrasonic worlds, accessed by creative modes of capture and unconventional microphones such as contact, electromagnetic and geophone, as discussed in Chapter 3.

In contrast to previous acts in the film, the audience is now encouraged to engage with the materiality of micro-scale vibrations and resonances, where profilmic sounds captured from the location are transformed into sonic/music textures. This shift redirects attention from the community's socio-cultural aspects of the film to infrastructures and non-human entities constituting the acoustic territory of the place, which include placing directional microphones inside scaffolding structures; capturing electromagnetic fields generated by electrical wiring, cables, and digital structures; and recording radio frequencies on-site.

Although still connected to previous explorations challenging the prevailing notion of an 'objective' voice and the visually centred representations typically encountered in documentaries, this approach in the film seeks to "expand the possibilities of the real" via the auditory setting, as suggested by Voegelin (2019, p. 272). In this regard, the exploration of sonic materiality serves as an aesthetic and experiential force, aligning with the concept of sensory exploration within the field of anthropology (Feld, 1996; Pink, 2015). This perspective potentially allows for the reinterpretation of the audiovisual work. It creates room for the creative treatment of the soundtrack, allowing audience engagement and participation through multiple sonic interpretations.

To achieve its objective, *Notes on Listening's* sound design employed creative approaches that expanded, stretched, and collapsed the relationship between audio and visuals for sensory exploration. Rogers (2020) has focussed on treating sound more creatively than visuals, exploring how experimental documentaries employ "sonic elongation", manipulating recorded actual/location sounds into sonic textures or soundscape compositions. Post-production enhancements often transform these sounds to the point their connection to corresponding visuals becomes ambiguous (Rogers, 2020). Thus, sonic elongation blurs the line between fiction film fantasies and documentary's engagement with real-world footage, fostering a creative auditory perspective (Rogers, 2020). This intentional manipulation invites audience interpretation and imagination, pushing the aesthetic and poetics boundaries of the

documentary genre. Through sonic elongation and other creative techniques, Act 3 of the film transforms "micro-acoustic sounds into large-scale effects" (Wright, 2022, p. 93), enabling subjective exploration of the sonic environment resonating in the soundtrack.

To exemplify, the opening sequence of Act 3 [00:08:24] features a panoramic long shot of the Bussey Building. This post-industrial structure is a vibrant hub for creative studios, art galleries, bars, and other amenities. Saved from demolition through an extensive community campaign organised in 2006, led by the local group Peckham Vision, today it stands as a testament to the success of that initiative, offering dynamic space for both locals and visitors to indulge in the creative vibrancy of Rye Lane. In contrast to conventional practices within the documentary genre, this visual portrayal deliberately avoids relying on voice-over narration, interviews, or any other form of linguistic orientation to provide narrative information about the building. Instead, it invites the audience to immerse themselves in the invisible sonic realm of the infrastructure, deviating from conventional audiovisual ratios regarding perspective and scale. To elaborate, while the audience visually perceives the building from a distant standpoint, their auditory perspective allows them to discern the subtle nuances of a close-up sonic texture. Specifically, in this long shot, the amplified and layered electromagnetic signals captured from the building's infrastructure grant a sense of proximity, while at the same time maintaining a visual distance from it.

This displacement of the point of listening in relation to the point of view shot (POV) can be characterised as an intermediate state between what Chion (1994) identifies as "causal" and "reduced" listening. "Causal listening" describes a mode of auditory perception primarily focused on recognising and interpreting sounds based upon tangible recognition of their causal origins or sources. When engaging in causal listening, individuals prioritise understanding the specific causes and meanings behind the sounds they hear. On the other hand, in "reduced listening", the audience aims to detach themselves from the context or meaning of the sound, instead focusing on the inherent characteristics of the sound itself. This approach encourages the listener to explore the various aspects of sound, such as its timbre, pitch, rhythm, dynamics, and spatial qualities, without interpreting or associating it with familiar references (Chion, 1994).

In the specific context of this film's sequence, the visual reference enables the audience to associate the auditory experience with the particular building, providing a contextual framework for the listener's perception of the sound. However, the nature of sound and its perspective portrayed in the film sequence cannot be objectively located or fully understood first-hand. While the visual reference establishes a source for the sound, the audience is confronted with the inherent complexities of perceiving and comprehending sound. Hence, I argue that the subjective nature of auditory perception and the resulting ambiguity contributes to situating the auditory space between causal and reduced listening, which was applied in the whole Act 3. Therefore, when real-world sounds transition into sonic composition, there is a shift in the mode of attention from passive hearing, an involuntary process of receiving sounds, to active listening, involving attentive and interpretative engagement (Rogers, 2022). Nonetheless, this process encourages a perceptual and subjective comprehension of the environment while maintaining a connection between sonic abstractions and their contextual references on screen.

By delving into the micro-world of infrastructural vibrations, the film's sequence enhances the materiality of the audiovisual experience by incorporating textural and multi-layered sound qualities (Birtwistle, 2017). This approach, implemented throughout Act 3, signifies a shift in the film's soundtrack in relation to the previous acts, from emphasising gesture and presence to highlighting textural elements. In the context of acousmatic music, Smalley (2001) reflects, "If gestures are weak, if they become too stretched out in time, or if they become too slowly evolving, we lose the human physicality. We seem to cross a blurred border between events on a human scale and events on a more worldly, environmental scale. At the same time there is a change of listening focus…which is primarily textural, then concentrates on internal activity at the expense of forward impetus" (Smalley, 2001, pp. 113–114). The persistent sonic continuity plays a crucial role in both announcing and seamlessly connecting subsequent scenes, within which, "spatial texture" (Murch, 2015; Smalley, 2001) becomes significant as it pertains to the revelation of spatial perspective over time and its relationship with the textural qualities of the sonic material. Further, I argue that this integration of sonic textures and spatial configurations onscreen surpasses the limitations of traditional sonic representation in

documentaries. It expands boundaries and heightens sensory engagement, amplifying and resonating the emotional impact of the audiovisual composition.

In this regard, the creative manipulation of sound via "sonic elongation" (Rogers, 2020) becomes evident in the film's scaffolding scene sequence [00:09:20]. Establishing a visual reference and its corresponding real-world sound sets the foundation. As the sequence unfolds, a notable development occurs whereby the sonic space transcends the confines of objective representation and ventures into the realm of subjective qualities, enhancing the sensory quality of the audiovisual experience, resulting in a discernible transition towards an imaginative and poetic auditory environment. This transformation persists throughout a long sequence of visual portrayals depicting Peckham through a continuous audiovisual resonance. Rogers (2022) reflects, "When it reaches a certain rhythmic and aesthetic distance, however, the stretched sound no longer tells us what the image is, but rather encourages us to speculate, interpret and rethink what it might be" (online).

A similar approach is implemented in the next scene [00:10:14], which includes a prolonged observational shot of a construction site on the screen. At the same time, the auditory landscape undergoes gradual changes. To capture the 'authentic' sounds of the environment, conventional directional microphones were employed. Subsequently, additional sonic layers were introduced through contact microphones, also recorded on-site. In this particular sequence, although the visual depiction remains unaltered, its significance is transformed by the gradual alteration of the ambient sounds, transcending the confines of an observational documentary style. In this context, extended shots of an empty playground juxtaposed with a construction site gain significance through the interplay of different timeframes in sound recordings. Initially, the construction noises correspond to the visible scene. Subsequently, blending with the cheerful sounds of playing children, the scene gradually incorporates multiple temporal layers of sound. This contrast emphasises how sound operates across various timeframes, often differing from the pace of visual elements unfolding. Therefore, it delves into poetic expressions encompassing subjective qualities of inaudible frequencies, vibrations and multiple temporalities of sound onscreen.

In the subsequent sequence [00:11:05], a deliberate shift in auditory perspective takes place, transitioning from infrastructures and vibrations to what LaBelle (2010) describes as the "arena of transmitted imaginaries": the sky. Through a series of sequential scenes captured from a rooftop, attention is realigned towards the realm of inaudible frequencies, especially exploring Peckham's radio transmission culture. The film concludes with a series of rapid and rhythmic cuts, strategically responding to abrupt sonic transitions between acoustic spaces, which highlights the distinct acoustic differences and spatial characteristics of Rye Lane. Concluding the film with the departure of a train brings a sense of closure to the circular narrative that began with the arrival of a train.

Thus, in the sound design of *Notes on Listening*, various processes and techniques aligned with a contemporary and experimental landscape of non-fiction films and Roger's (2020) concept of "sonic elongation". However, it is important to consider how these creative approaches transcend the exhausted study of the 'audiovisual contract' (Birtwistle, 2017; Chion, 1994; Rogers, 2020), by articulating sonic thinking and sensibilities from the film's conception. This contribution enriches the discussion and practice of non-fiction film-making and sound studies by transcending traditional audio-visual studies and advocating for the incorporation of sonic methodologies into the film's production processes.

Section Summary and Critical Reflection

To enhance and 'amplify' the relationship between sound and place as a powerful inquiry for non-fiction media works, it was essential to direct attention towards the integration of methods and processes employed from pre-production to post-production. Considering that acts of listening and Phase 01 and 02 experiments served as a research strategy and catalyst for the project, it became evident that incorporating sonic thinking and sensibilities in non-fiction film-making had diverse implications for the film's structure and narrative. These consequences were extended into the sound design, reaching beyond the realms of 'pure' aesthetic propositions and extending to sound's perceptual and political dimensions. In other words, sonic methodologies served as creative "passage to material and political reality" (Nagib, 2020, p. 23).

Thus, in the context of my project, "the political possibility of sound" (Voegelin, 2019) relies upon the 'amplification' of subjective qualities permeating Peckham's acoustic territory. However, sound does not seek to create a unified or representative depiction of a place; instead, it resonates with the intricate socio-cultural and political peculiarities that embody an "invisible activity of resistance" (Ibid., p. 24). This amplification exposes the inherent limitations of public policies and private sectors, which persistently disregard the invisible aspects of Peckham's identity and belonging. Put simply; these organizations rely on visible and tangible divisions to measure and shape the future of Peckham through the rapid implementation of the 'regeneration project' (Conn, 2022, interview), overlooking the cultural and social identities integral to Peckham's character.

In conclusion, the creative approaches applied to the sound design aimed to explore innovative treatments for the soundtrack through the poetics and politics of listening. They became an extension of sonic thinking and sensibilities articulated from the previous experiments conducted on the site. The creative intentions behind the sound design of *Notes on Listening* encompassed integrating previous experiments, methods, and conceptual frameworks that emerged from the practice research process as a whole. Thus, to document, reflect, and articulate practice research in the film-making process (Knudsen, 2017), the research objectives had to be aligned to address the research inquiries at hand, enabling it to contribute critically to the film's message and artistic vision.

Chapter Conclusion

This chapter engaged in practice research into the reorientation of sound and place beyond post-production within the context of non-fiction film-making. It examined the ways ambient sounds could be creatively and critically articulated in terms of documentation, production, and subjectivity, drawing upon the historical convergence of boundaries between artistic expression and more traditional documentary practices. In this direction, the chapter addressed the fourth objective of my research:

> To create a short film that reimagines the articulation of place and sound,
> integrating insights from site-sensitive research into sensory-driven narrative
> structures. This film will serve as both a creative outcome and a reflective

evaluation of sonic methodologies, emphasizing the creative and conceptual
practices of listening in non-fiction film-making. (Research Objective 4)

It is critical to recognise that a substantial portion of the significant and original contribution to the knowledge proposed by my research lies in the contextual and critical reflections concerning the origins of the sonic material and its methodological and conceptual frameworks. Disregarding this holistic approach and solely emphasising the creative treatment of the soundtrack via audiovisual studies (Birtwistle, 2017; Chion, 1994; Rogers, 2020) would undermine the comprehensive understanding and significance of the research findings.

Moreover, the interplay between the research methods, critical reflection, and creative decisions was necessary to grasp the depth and implications of the research outcomes fully. The comprehensive integration of disciplines such as anthropology of sound, sound arts, and film sound studies served as a critical foundation for my research, providing guidance and coherence for various interconnected aspects of the project, with aesthetic, perceptual, and political consequences for the film's structure/narrative, now expressed through sound design and mixing.

Consequently, *Notes on Listening* was as conceived as a research project that integrated sonic thinking and sensibilities from the outset. The three acts in the film emerged from the research process which employed a series of sonic methods to explore sound's material and subjective qualities. The resulting sonic compositions, treated as artefacts stemming from Phase One and Two experiments, serve as both documentation and conduits for expressing emerging sonic subjectivities and materiality discovered throughout the journey. These compositions ultimately shaped the film's final outcome.

The subsequent chapter, 'Thesis Conclusion', will delve deeper into the original contribution to knowledge, and potential impacts of the interconnected facets of my research.

5   THESIS CONCLUSION

Aims and Objectives

In these chapters, this thesis has explored, via practice research, how sound and listening can be more than just creative or representational tools, and can instead be ontological, methodological, and phenomenological conduits for transcending linguistic and visual constraints in the documentary form. The research was initiated with the following inquiries: how can the agency of the acoustic environment, investigated through site-sensitive research and sonic methodologies, rearticulate sonic thinking and sensibilities in the documentary form? In what ways does this approach challenge the dominance of language and visual-centric tendencies within non-fiction film production?

The practical outcomes of this study include a short non-fiction film (*Notes on Listening*), three distinct soundscape compositions, and a website developed to document, articulate, and disseminate the project's creative research journey. Prior to discussing the investigation further, the initial aims and objectives are restated here, followed by explanations of how they have been addressed.

Addressing the Objectives

 Objective 1: To conduct preliminary studies on the conceptual and contextual roles of sound in contemporary documentaries, emphasizing how listening and environmental context have often been overlooked in a genre traditionally associated with objectivity and realism.

This objective, explored in Chapter 1, exposes the limits of articulating 'sonic thinking' (Herzogenrath, 2017) in documentary film-making. It emphasises sound's confinement within representational modes, rooted in linguistic meaning, visual evidence and ethnographic traditions. Additionally, conventional documentaries have treated sound and music as object

and tool for emotional manipulation, aestheticized in a similar way as in fiction, leading to ethical considerations around "the creative treatment of actuality" (Grierson in Laura, 2011, p.189). Influenced by Michel Chion and other contemporary scholars in film sound studies, I have elucidated that contemporary sound design practices are exhaustively focused on the audio-visual relationship, and its association with storytelling, as something to be controlled and manipulated via 'synchresis', or the synergy between audio and visual via the application of music and sound design (Chion, 1996).

As a result of the complex attachment of sound to either documentation or to the aesthetics of sound design, the concept of agency, both within and beyond the location, has been overlooked as a subject in the art of non-fiction film. This became evident whilst considering the way that sound and its relational dynamics within the site (pro-filmic space) are suppressed in documentaries. The result is an enduring divide, sometimes with overlaps, between sound's role as a mere complement to visual and logocentric representation, and its manipulative use through music and sound effects, mirroring techniques employed in fictional narratives. Hence, documentary practice has often closed the ears to those vibrational moments of affect, "where thought and sensation merge into a very specific way of "doing thinking" (Herzogenrath, 2017, p. 5).

The contextual review therefore revealed a compelling research opportunity: to dive into the porous space between visual evidence, linguistic meaning, and music, to investigate how the acoustic territory, or the inter-relation between sound and place, can be a catalyst for non-fiction film research. This allows for a reexamination of the creative and critical use of sound in documentary practice. In doing so, the project required a perceptual approach that acknowledged the sociocultural importance of sound while also embracing its material and subjective dimensions.

The exploration of 'listening as strategy' through the case study of *Zawawa* shed light on the possibilities of incorporating environmental sounds, and embracing listening as both a testimonial and creative method that surpasses linguistic limitations. As a result, *Zawawa's* documentary approach unveils "aspects of the landscape that typically remain unseen and

unheard" (Takamine, 1992). This sonic perspective disorients the landscape by leaking testimonial texts into the actual soundscape of Okinawa. In doing so, it transcends traditional authoritative interview formats. The combined residue of memories and traumas resonates acutely on screen through the deliberate amplification of the sonic environment. Thus, my research was positioned and motivated by filmmakers and artists who perceive sound and listening as strategic gateways to delve into site-sensitive research, exploring a myriad of potential mediations.

Objective 2: To develop a practice, underpinned by the research methodology applied in this thesis and grounded in the integration of sonic thinking and creative methods for non-fiction film-making. This objective focuses on how creative approaches can redefine sound and place as artistic mediums within experimental documentary forms.

Here, the focus was on understanding the perceptual and critical implications of employing sonic methods as catalysts for research, thereby shaping the subsequent process for film production. As discussed in Chapter 2, I formulated a creative research process diagram that illustrates my original methods. The methods represented a unique strategy for understanding and articulating the various stages of film production through listening. In this context, situated listening, field recording, soundscape composition, filming, editing, and sound design operated as interconnected practices, bringing the process back to its origin. That is, to listening. Beginning with listening as a strategy for site-sensitive research, the cycle is made complete in the portrayal of listening on screen through film-making and its sensory-technological mediation.

Throughout this journey, I departed significantly from traditional film-making methods and structures, with listening taking precedence and sonic methods becoming integrally intertwined with the film-making process. The unfolding of the three acts of *Notes on Listening* represents, fundamentally, three acts of listening. This approach manifested the tangible potential of listening as strategy for non-fiction film-making, embodied through sonic thinking and its methods.

Objective 3: To experiment with listening practices and field recording in film-making through a series of sonic works. This objective will focus on the perceptual and critical impacts of representing sound and place as a way of knowing. It will highlight their roles as catalysts for advancing documentary research and informing subsequent film production.

The primary focus of this objective was to conduct a series of experimental studies exploring practices of listening and field recording techniques in creative documentary film-making. This involved delving into the perceptual and critical dimensions of sound and site-sensitive research, as they are integrated within the film-making process.

As discussed in Chapter 3, *Experiment Phase One* emphasised the capacity of sound to coexist in multiple perspectives within the camera frame, expanding beyond any visual limitations. Consequently, this preliminary experiment significantly informed the filming and editing strategies which followed. However, it was critical to reflect that the dynamic nature of sonic agency in non-scripted documentary led to an organic process where listening, field recording, composition, shooting, and editing intertwined to become a contingent process. Thus, the process was never fixed or predetermined but rather was subject to change based on a "plurality of signals" (Wright, 2022) encountered at the site. This dynamic approach has produced generative results, challenging the initial outcomes of my project and rejecting any notion of linear narrative forms, thereby opening up multiple possibilities for the film's montage/editing.

Experiment Phase Two marked another series of experimentations, investigating the capabilities of recording technologies to capture sounds imperceptible to the human ear. This investigation led to a profound alteration in sensory perception, shifting from a conventional and supposedly realistic mode of representation, to grasping an inaudible vibratory understanding, generated by the material nature of sound. The resulting sonic compositions, *(In)Auditions 1*, *2* and *3,* exemplify the synergy between creative field recording and sonic composition, showcasing these methodologies' capacity to invigorate both research and film-

making practices. By integrating elements of listening-associated field recording, the compositions mentioned above offer diverse auditory perspectives, thus diverging from the predominantly visual-centric approaches often seen in documentary filmmaking. Incorporating sonic methodologies into the film-making process itself led to a recalibration of other sensory dimensions, resulting in creative implications for the post-production phase of *Notes on Listening*, as discussed in Chapter 4.

Objective 4: To create a short film that reimagines the articulation of place and sound, integrating insights from site-sensitive research into sensory-driven narrative structures. This film will serve as both a creative outcome and a reflective evaluation of sonic methodologies, emphasizing the creative and conceptual practices of listening in non-fiction film-making.

This objective is addressed throughout the production of *Notes on Listening,* as well as being further discussed and articulated in Chapter 4. The critical interplay between research methods, reflective analysis, and creative decisions was unpacked to examine the research process and the implications of the films' outcome. The integration of disciplines such as the anthropology of sound, sound arts, and film sound studies provided diverse conceptual frameworks, which guided and unified various aspects of the project, influencing the film's structure, narrative, sound design and mixing.

Notes on Listening presents an innovative proposition: using listening as a strategy to challenge the traditional visual-centric ways of seeing shaped by power relations and discourses around documentary production. This approach urges us to reconsider how we perceive the 'landscape' of documentary film, offering new possibilities to incorporate sonic thinking into the film-making process.

The film was structured in three acts, each delving into different aspects of acoustic perception. Act 1, "Entering the Acoustic Territory" offers an immersive experience, exploring the simultaneous and context-site-specific nature of sound by dislocating the sonic source from the visual reference. This approach challenges how we see, encouraging a shift from visual

dominance to auditory awareness - as a result of Experiment Phase One (discussed in Chapter 3). Acts 2 and 3, "Acoustics of Resistance" and "Grasping the Inaudible," continue this journey. They redefine the landscape, creating opportunities to encounter the unseen and unheard, fostering an acoustic awareness that brings to light elements of resistance and the inaudible. This reimagining pushes the boundaries of traditional documentary storytelling, with sound taking a central role in shaping the audiovisual experience - as a result of Experiment Phase Two (discussed in Chapter 3).

The three acts emerged from a meticulous research process employing a series of sonic methods, including listening practices, field recording and soundscape composition. The resulting sonic compositions, viewed as artefacts from Phase One and Two experiments, serve dual purposes: they document the research journey and act as conduits for expressing the emerging sonic subjectivities and materialities discovered, now translated into the film's structure and sound design. In other words, these compositions played a catalytic role in shaping the film's final outcome. They extended the sonic thinking and sensibilities articulated during the experiments, fundamentally influencing the film's structure and content.

By systematically tackling these objectives, the following research aim was accomplished:

This research aims to develop innovative methods for integrating sonic thinking and practices into creative documentaries. Drawing on my experience as a sound artist and sound designer, it focuses on sensory narrative approaches that engage with sound and place as experimental forms, moving beyond conventional, logocentric narrative structures. By exploring the creative potential of sonic methodologies, the study seeks to offer new insights into how the acoustic environment can be critically articulated—from site-sensitive research to creative decisions onscreen.

Through this process, I crafted the film *Notes on Listening,* and articulated, documented, and critically reflected upon the methodology employed in its production as well as the conceptual frameworks that emerged from it. Utilizing an interdisciplinary perspective, bridging sound arts

practice with film sound and documentary studies, facilitated a cyclical process that unfolds throughout this thesis. The following points reinforce my original contributions and further discussions.

Discussion and Original Contribution to Practice

This research's primary contribution lies in its original methods for critically examining the sonic ecosystem of documentary film-making. In doing so, it seeks to develop an innovative approach which incorporates sonic thinking and its methodologies as integral components of the film-making process, demanding significant risk-taking and experimentation. As a sound artist, exploring new perspectives in documentary film production proved both captivating and challenging, perhaps because generally, sound practitioners are relegated to the backgrounds within film production. However, the sonic agency in this study plays a central role, marking a distinct shift from traditional film-making methods. This methodological exploration, integrating sonic thinking at all stages—from pre-production to post-production—raises both perceptual and aesthetic implications in the production of *Notes on Listening*, as discussed in Chapters 3 and 4.

From a perceptual standpoint, the film's sound design transcends traditional sonic manipulation which often only bolsters the representational aspects of moving images. Instead it becomes a powerful medium for conveying sensory perspectives, amplifying subjective qualities within the vibrant acoustic territory of Peckham. Consequently, the audience are not merely passive observers but are active listeners who can feel, resonate with, and gain glimpses of Peckham's essence through the amalgamation of audio and visual stimuli (BAFFTS Practice Research Awards 2024, online):

> "The panel agreed that 'Notes on Listening' is a highly original sound-driven narrative documentary that successfully puts the audience inside the area it explores, Peckham in London. The film skilfully represents the complex and unique soundscape of this London borough, giving a visual and sonic sense of its vivacity and vibrancy. In doing so, it makes a clear case for resisting the impending threats posed by encroaching gentrification. The panel

commended the filmmaker's creative and intricate approach, which provides
a vivid evocation of Peckham's rich cultural life."

From both an aesthetic and political standpoint, *Notes on Listening* embraces the politics of listening by highlighting the socio-cultural and political nuances embedded within the acoustic territory. Sound offers a pluralistic perspective on non-fiction film production, departing from conventional listening practices to articulate an audio-visual journey that incorporates the 'political possibility of sound' (Voegelin, 2019).These perspectives are original because they articulate knowledge beyond the normative regimes of documentary, which are so often grounded in visual modes and verbal communication. Moreover, as discussed throughout this thesis, active listening is always relational and when it adopts a positionality, can be a distinctly political act. Listening from what perspective? Who is listening, and for what? What has been silenced or amplified in this process? Additionally, this positionality of listening illuminates critical opportunities for creatively amplifying the agency of the acoustic environment mediated by film-making. In this way, *Notes on Listening* is a film project crafted for and by sound. In it, Peckham's acoustic territory is embraced by rhizomatic uncertainties, which emerged from the film-making process.

The film unfolds in three distinct acts, each weaving together previous experiments and conceptual frameworks through diverse yet interconnected creative strategies in sound design. Essential to exploring the relationship between sound and place in non-fiction media was the integration of these methods at all stages, from pre to post-production. The project was propelled by listening and sonic experimentation, focusing on structural and narrative implications while delving into sound's perceptual and political spheres. This process acted as a conduit for material and subjective qualities within Peckham's acoustic territory, and illuminated a range of societal oversights. Prior experimentations (phase one and two) made the creative sound design and mixing approach possible. Each sound in the film is diegetic and recorded from the site. However, what is perhaps more significant, is that each creative decision of the sound design process consciously integrated elements and ideas from the preceding sonic compositions. This in itself constituted a significant contribution to knowledge: the realization of this cyclical expression was facilitated by the consistent application of sonic thinking throughout the film production process.

These original methods expanded on sonic practices and theory. Feld's acoustemological concept acted as a primary framework in shaping the research methods, amalgamating different 'sonic methodologies' (Bull and Cobussen, 2021) into non-fiction film-making. As a result of the research progression, additional concepts surfaced, including "sonic thinking" (Herzogenrath, 2017), "sensibilities" (Voegelin, 2018), "acoustic territory" and "sonic agency" (Labelle, 2010; 2020), and "the political possibility of sound" (Voegelin, 2019), among others described within this thesis. These theoretical frameworks shaped the trajectory of this research, the development of the creative output, and its subsequent evaluation. In essence, this evaluation involved "reflecting on the process and any working assumptions that have been relevant to the making of the work" (Candy, 2020, p. 246). This encompassed systematic and rigorous activities such as observation, maintaining listening diaries, recording, composing, editing, writing, and engaging in individual and collective critical reflection, including conducting interviews with collaborators.

The impact of collaboration prompted many forms of reflection, with the most significant being an expansion beyond the limitations imposed by my own familiar modes of thinking. Working collaboratively, a vital element of film-making production, decentralized my reflective approach, allowing for the integration of others' perspectives. This external input aided the capacity for reflective evaluation within the project, underpinned by the theoretical frameworks explored in the thesis. As an illustration, the concept of "dialogic editing through sound", as elaborated upon in Chapter 4, played a pivotal role. Utilizing 'horizontal' discussions with collaborators during the film's editing and post-production stages facilitated a reflective dialogue between theory and practice, offering fresh insights that fed back into the film production itself. In that sense, the research concentrated on the film's modes of production instead of modes of reception (as by the audience), as previously discussed in this thesis.

The three act structure of *Notes on Listening* emerged through systematic practice and rigorous research. However, it is important to emphasise that the research does not propose a formulaic approach applicable to film-makers. Each film project is inherently unique, demanding distinct methodologies. Nevertheless, the research offered fertile ground for a diverse community of practices, inspiring independent film-makers and scholars to produce

work that not only reflects the complexity of our world through visual and linguistic meaning, but offers new insights and perspectives derived from sonic knowledge. In this context, listening becomes a tool to "articulate the tacit as equally valuable knowledge as the explicitly codified" (Knudsen, 2018, p. 124). Ultimately, *Notes on Listening* embodies sonic thinking, translating it into tangible audiovisual form. Within this framework, *Amplifying Ambience* – a term discussed in the next section - emerged as a critical framework, allowing a rethinking of the sonic ecosystem within the documentary form.

Original Concept

The term *Amplifying Ambience* thus emerged within my work as part of a critical framework which positioned the site itself as a locus of research. This emphasised a shift in the hierarchies of cinematic production, which aims to refocus sensory attention towards the soundscape. The soundscape thus becomes not merely a recording playground for extracting sonic material for a film's sound design, but is rather a means of attuning to the acoustic and epistemological potential of a place; sound as a mode of understanding. This approach not only fundamentally challenges traditional methods of documentary film production but also paves the way for further exploration of novel concepts and terminologies in my research. Rooted in an interdisciplinary approach, the research that follows can pay attention to where these branches meet, to the intersections of sound arts, documentary studies, and film sound theories.

Explorations into the material qualities of sound, exemplified by scholars like Birtwistle (2017), Rogers (2021) and Huvenne (2022), reveal the power of sound in reshaping aesthetics and enhancing sensory connections between audio and visual elements on screen. They highlight a fundamental limitation in film sound studies and practice, which often prioritizes the interaction between audio and visual elements, and audience perception. The conventional separation between on-location recording and studio-based post-production processes has become standard, influencing broader institutional procedures. In contemporary documentaries, this division accentuates the pursuit of a hierarchy of aesthetically pleasing soundscapes, widening the gap between nuanced site-specific sonic experiences and manufactured sound design.

Amplifying Ambience, as a terminology*,* posits an exploration of the intricate mediation between sound, place, narrative, and documentary discourse, expanding an engagement with the poetics and politics inherent in listening. This approach involved turning attention towards Peckham's acoustic territory, thus positioning sound as conceptual and perceptual material within non-fiction media. Shifting the focus onto what is usually only perceived as background noise, and foregrounding ambience within the context of film practice, became the critical perspective of my work. Through this lens, I aimed to imbue sound with agency, seamlessly integrating it as the main material and conceptual 'protagonist' when producing *Notes on Listening.*

Exhibition Formats

This research required ongoing reflexivity as part of the practice, which involved listening practices, field recording, sonic experiments, film-making, writing, dialogue with collaborators and supervisors, and a commitment to sound studies principles. Yet, as Knudson (2018) suggests, it was essential to document this process, to articulate and disseminate the new subjectivities that arose from it, which contribute to the broader discourse and practice surrounding the subject of study. One effective approach involved developing a website which hosted and displayed aspects of the work, including the methodology, sonic compositions, and two video blogs featuring collaborators' reflections on the production process. Access to this website is available here: https://notesonlistening.wixsite.com/film

Most of the website's content is explored and discussed within this thesis, except for a video blog featuring Sound Recording Mixer, Ricardo Reis. In this, he reflects on both the potential challenges and opportunities for further research presented by *Notes on Listening's* mixing and its display within an exhibition context. Using binaural audio recording posed a question: how will this project be exhibited? Typically, binaural audio is designed for headphone listening, raising the issue of translating the sound mixing from stereo binaural to a 5.1 surround system for cinema theatres. This obstacle is addressed in Reis' video blog, where he reflects on solutions which involve converting binaural recordings to Dolby Atmos and then rendering them to a 5.1 surround system. Ultimately, *Notes on Listening* is a film that can be

experienced in various cinematic auditory configurations, including binaural stereo, on headphones, 5.1 surround systems, and Dolby Atmos.

Given the film's non-linear narrative structure, *Notes on Listening* can also be exhibited in gallery spaces as an audio-visual installation. While this presents a complex technological discussion outside the scope of my research aims, it certainly lays the groundwork for further exploration and development in sound post-production, mixing techniques and modes of exhibition.

Conclusion, Research Impact & Future

It is important here to emphasise that this research does not aim to propose new theories or offer formulaic approaches to be replicated in documentary production. None of my contributions are intended to 'correct' documentary film sounds in any way. Rather, I hope to offer an interdisciplinary and critical perspective which engages with sound and non-fiction film-making, incorporating sonic knowledge and sensibilities in the process.

In terms of impact, this research has the potential to cultivate "multiple impact cultures" (Reed and Fazey, 2021) for academic and non-academic communities. It has prompted a rethinking of the role of sound in non-fiction film-making, exploring listening as strategy for practice research. This approach is evidenced not only in the film itself but throughout the exposition and articulation of the research process discussed in this thesis, documented on the website, and recognized as a winner of the BFTSS Awards 2024 – Practice Research category. Therefore, the research can inspire film-makers, sound practitioners, and scholars to explore new methods and insights into the sonic ecosystem of documentary form.

Acknowledging the theoretical limitations of my research outcomes paves the way for any future interdisciplinary theoretical advancements. Conceptually, this direction offers opportunities to further bridge diverse disciplines, thereby rethinking and updating terminologies. My proposal in response to the open call for this PhD, Scholarship in Film – Practice-based Research, was titled '*Sonic Landscape of Documentary Form'.* Building upon

De Michiel and Zimmerman's (2017) notion of documentaries as "ecosystem forms", renowned for their dynamic and adaptable essence, I altered the term 'sonic landscape of documentary' to 'sonic ecosystem of documentary' within my thesis. Throughout my research, it became evident that the methods designed and utilized in crafting my film led to more organic encounters, akin to a rhizomatic ecosystem, rather than fitting neatly within the theoretical legacy of the ocular landscape. This newly proposed terminology emphasises active listening, which promotes attentive, inclusive, and reciprocal engagement with the environment around us. By recognizing the environment as an ecological process, encompassing various life forms and temporalities, 'sonic ecosystem of documentary' seeks to unveil the multifaceted nature of the landscape, encompassing poetic, political, metaphorical, imaginary, and speculative dimensions.

Notes on Listening, therefore, emerges from this proposition, fomenting a critical shift in ways of seeing shaped by various power relations and discourses surrounding the gaze. Thus, listening as strategy, asks us to reconsider how we perceive the landscape of documentary film. *Act 1*, *Entering the Acoustic Territory*, explored the simultaneous and context-specific nature of sound, offering diverse sensory perspectives and challenging how we see. *Acts 2 and 3, Acoustics of Resistance* and *Grasping the Inaudible*, reimagined the landscape to facilitate acoustic encounters attuned to the unseen and unheard. This self-reflective approach considered our bodies as part of the landscape, by thinking and sensing sound as agency, diving into "a construction site of exploration and connection" (Cox, 2023, p.3). By spotlighting unconventional film-making methods of sensing and mediating our environment on screen, this research establishes fertile ground for sowing future conceptual innovations.

Practically, I aim to advance participatory listening methods and further develop this study through collaborative research projects, as elaborated below. Looking ahead, there are multiple promising avenues for research:

Filmmaking and Neurodiversity: a research opportunity to explore how sonic methods can enhance media experiences for individuals with neurodiverse conditions, aligning with initiatives such as the Aural Diversity project and William Renel's work on 'sonic inclusion'.

Experimental Pedagogy: developing listening protocols and experimental pedagogical toolkits for film-makers and students, potentially intersecting with projects like the Sonic Pedagogy AHRC-funded initiative, 'Listening Across Disciplines'.

Peckham Character: an opportunity to investigate the acoustic environment of Peckham and its socio-cultural significance in architecture and development planning. This potential research aims to enhance urban planning studies, policies, and the overall understanding of Peckham's character study as developed by Southwark Council.

Finally, it is essential to acknowledge a limitation of listening: the risk of essentialism if it is over emphasised. This entails attributing excessive significance to listening, akin to the historical dominance of the visual sense. Thus, while valuable, listening should not be seen as a panacea for documentary film-making. Instead, we should recognize its emancipatory potential and its role in amplifying critical reflection and diversity in practice. This signifies not an end, but a starting point for further exploration and innovation in the field. This study should be positioned within the broader context of sonic practices, which provide alternative methods and creative potentials for the ecosystem of documentary practices as a whole.

6   RESEARCH OUTPUTS

1. **A short film titled *Notes on Listening*:** with a duration of 14 minutes, is accessible here: https://vimeo.com/857449724/62f15e2944?share=copy

2. **Sonic pieces**: This includes a series of three soundscape compositions titled *(In)Audition 1, 2* and *3*, with a total duration of 20 minutes. These sonic compositions are discussed throughout the thesis in Chapter 3, with instructions on when and how to listen to them. Accessible here: https://notesonlistening.wixsite.com/film/blank-1

3. **A webpage:** that showcases significant aspects of the film's research process. This includes the sonic pieces, video interviews with the editor and re-recording mix engineer, the film's teaser and key aspects of the methodology. Accessible here: https://notesonlistening.wixsite.com/film

7   SELECTED PAPERS AND PRESENTATIONS

Publication

Mazza, F. (2023). More Than Background: What Sounds Do. The audio paper was published at *Seismograf*, a peer-reviewed platform*.*
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32 Sounds (2022). Directed by Sam Green. [Feature film]. USA: Produced by ArKtype, The Department of Motion Pictures, Impact Partners, Wavelength Productions and Free History Project.

Art Exhibition

Documentary Genealogies (2023) – 1848-1917, Reina Sofia Museum, Madrid, Spain.

APPENDIX

APPENDIX A: LISTENING PROTOCOL

(developed in the initial stage of my research)

Listening Protocol

This protocol was inspired by the research project Listening Across Disciplines, "which systematically investigates the potential of listening as a legitimate and reliable methodology for research across the arts and humanities, sciences, social sciences, and technology" (LAD website).

The listening protocol was created for my practice research apllying listening practices as strategy for site-sensitive research to produce my documentary film. However, ot is essential to note that my listening protocol is not a set of strict instructions on how to listen but rather a set of listening strategies and notes that I employ in my practice research. As a result, there are always experimental and opportune changes.

Here are some listening tactics used during the early stages of my research:

1. Stay in the selected place for at least 15 minutes, preferably more.

2. Focus on particular sounds and their acoustic qualities, such as reverberation, vibration, echo, spatiality, position, movement, and relationships.

3. Notice background and ambient sounds.

4. Move around slowly, incorporating the whole body into the listening process, feeling vibrations with the feet and chest.

5. Walk according to the atmosphere's rhythm, shifting attention between external sounds and internal thoughts and emotions. Consider the relationship of all perceived rhythms (Oliveros, 2015).

6. Make notes on the listening experience.

7. Return to the same place regularly and note any differences.

8. Make sound recordings of at least 5 minutes.

9. Choose the location and microphone thoughtfully, reflecting on the reasons.

10. Alternate between intuitive and logical decisions for starting recordings.

11. Constantly check listening habits and sonic behavior.

12. Take photos as visual records of the location and recording spot for inspiration.

13. Listen back to the recordings carefully, logging them with dates, times, keywords, and narratives. Document and organize everything.

14. Map the listening and recording spots using soundmaps or paper maps.

APPENDIX B: INTERVIEW SCHEDULE – FILM EDITOR

PhD Practice-Based Researcher: Francisco Mazza

A documentary film about the sonic landscape of Peckham

Interview schedule - Dialogic Editing: with Tati Germano (film editor)

(A) Listening

1- Can you tell me how do you feel about the sounds of Peckham Rye Lane, in the film (footage)?
Prompt: physically, emotionally, mentally.

2- What would you say if you had to describe how the sonic compositions have influenced your editing decisions?
Prompt: what words come to mind? What images? What memories?

(B) Sonic Thinking and Sensibilities Extended to the Editing Process

3- What are your primary creative responses when editing the movie from the sonic perspective? How do you feel about this layered zone of sounds and the visual possibilities in the narrative?

4- What do you think about the challenges of this process?

(C) Sound and Place

5- Do you think it is possible to understand better Peckham's hybrid community by listening to the everyday sounds on the streets? Or do you miss verbal language to contextualize the film?
Prompt: local shops noises, music on the streets, voices.

6- Do you think any specific sounds distinguish Peckham from other neighbourhoods?
Prompt: music, noises, voices.

Example of an Interview Schedule with the film editor, designed to assist with the project evaluation.

APPENDIX C: ETICHAL REVIEW APPROVAL

School of Digital, Technologies and Arts

ETHICAL APPROVAL FEEDBACK

Researcher name:	Francisco Mazza
Title of Study:	SU_21_095 Re-sounding the Screen: The Poetics and Politics of Acoustic Territory in the Documentary.
Status of approval:	Approved

Thank you for addressing the committee's comments. Your research proposal has now been approved by the Ethics Panel and you may commence the implementation phase of your study. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

You should arrange to meet with your supervisor for support during the process of completing your study and writing your dissertation.

When your study is complete, please send the ethics committee an end of study report. A template can be found on the ethics BlackBoard site.

Signed: **Date: 31st March 2022**

E. [signature]

Prof. Elhadj Benkhelifa

Ethics Coordinator
Digital, Technologies and Arts